An Address
ON
A SURVEY OF THE CLIMATIC HEALTH RESORTS OF THE UNITED KINGDOM COMPARED WITH THOSE OF THE CONTINENT.

Delivered at a Meeting of the British Balneological and Climatological Society on April 27th, 1899,

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GENTLEMEN,—As you have done me the honour to ask me to give an address at this annual meeting of the British Balneological Society, I have selected a subject which I hope will meet with your approval and which is not of such a deep nature as to be likely to disturb the social character of the evening. I will invite you to follow me in a cursory survey of English climatic health resorts, and I will venture on some comparison between these resorts and continental ones and on some remarks regarding them. I shall confine myself to climatic health resorts, and shall not touch upon mineral waters. Before I begin I beg leave to direct your further attention with regard to English resorts to the excellent work on "The Climates and Baths of Great Britain"[1] which is the unbiased report of the committee of the Royal Medical and Chirurgical Society. Although I was a member of this committee I am permitted to speak with especial praise of this book since I have not made any contribution to it. It would be out of place, even if time would allow of it, to enter into the physiological and therapeutic characters of the different classes of health resorts before a society of medical men who are specially conversant with health resorts. I will discuss the subject under two heads: (1) marine and (2) inland climatic health resorts.

MARINE RESORTS.

In commencing with marine resorts I may say at once that there is no country in or out of Europe which can compete with Great Britain during summer and autumn, and that even during winter several English sea-coast places offer—at all events to some constitutions—advantages over continental resorts. Great is the number and variety of localities on the different coasts of Great Britain and Ireland, but owing to the peculiar position of these islands the main features are shared by all of them and give them a distinctive character when compared with the seaside climates of the continent. Mild winters and cool summers and comparative absence of extremes are the prominent peculiarities. This is well illustrated by A. Buchan[2] in his instructive book on meteorology: "If no more heat were received than is due to the position on the globe in respect to latitude the mean winter temperature of Shetland would be only 3° F. and that of London 17°. But chiefly owing to the heat given out by the Gulf Stream during winter and carried to these places by the winds their winter temperatures are respectively 39° and 38°, Shetland being benefited 36° and London 21°, from their proximity to the warm waters of the Atlantic." The number of rainy days is great, the air is rather humid, and being rich in water vapour is less transcalent and translucent than in drier regions, such as the High Alps and the Riviera, but the chill at sunset is less great than in the latter region and the danger of catching cold at that period of the day is diminished. The difference in the temperature between night and day is comparatively slight, as the humid atmosphere diminishes the radiation by night. To the large amount of vapour we owe the dulness of our atmosphere and the comparatively small amount of sunlight and sunheat. Another consequence of the nearness of the sea is a certain degree of windiness. There is a great difference in the climates of the east, the south-west, and the west coasts. Taking the average of years the latter are in winter several degrees warmer than the former, while in summer they are either of equal temperature or even somewhat cooler. Buchan shows this graphically by the isothermal lines; those of January run in Great Britain not horizontally from west to east, but turn down from the horizontal direction at almost right angles. The summer isotherms, on the other hand, run almost parallel to the lines of latitude and even rise slightly towards the east, showing the latter to be somewhat warmer than the west. "Speaking roughly, we may designate the west coast as warm and moist, the east as dry and cold, the western part of the south coast as far as Sidmouth as moist and especially warm, the line from Bournemouth to Hastings including the Isle of Wight as fairly dry and warm, the south-eastern part with Folkestone and Dover as approaching the characters of the east coast."[3] There are, however, great differences, not only in the climates of the different coasts but also in those of localities situated close to one another. Thus, for instance, it is well known that the climate on the Undercliff in the Isle of Wight is very different from that of Sandown, and Dr. Ord[4] justly says that "almost every possible variety of climate is comprehended in the Isle of Wight." Dr. Howship Dickinson in his description of Cornwall in the same work points out the difference between St. Ives on the north coast of the tongue of Cornwall and Penzance on the south, only a few miles distant from one another, and the same may be said of the whole lengths of coast on north and south of this narrow strip of land.

We may roughly divide the seaside places of Great Britain into (*a*) summer and (*b*) winter resorts, but we must add that many of the English winter resorts can with great advantage be used by some classes of delicate persons during the hotter part of the year, and that some summer resorts often do good service in winter.

Summer resorts.—Of these I have a long list before me, of places with which all of us are more or less intimately acquainted. Going from north to south we have Nairn, St. Andrews, Portobello, North Berwick, Redcar, Saltburn, Whitby, Scarborough, Filey, Bridlington, Hunstanton, Cromer, Yarmouth, Lowestoft, Aldeburgh, Felixstowe, Walton-on-the-Naze, Westgate, Margate, Broadstairs, Ramsgate, St. Lawrence, Deal, Walmer, and St. Margaret's. On the south-east and south coasts there are Dover, Folkestone, Sandgate, Hythe, Eastbourne, Seaford, Brighton, Worthing, Littlehampton, Bognor, Milford-on-Sea, and Southsea. In the Isle of Wight there are Sea View, Cowes, Ryde, Alum Bay, Freshwater, Sandown, and Shanklin. Further west we have Swanage, Weymouth, Lyme Regis, Seaton, Exmouth, and the Channel Islands. On the north coasts of Cornwall and Devon we have St. Ives, Newquay, Bude, Ilfracombe, and Lynton; and on the Bristol Channel Minehead, Weston-super-Mare, Clevedon, and Portishead. In Wales there are Tenby, Aberystwith, Barmouth, Beaumaris, Aber, Penmaenmawr, Llandudno, Colwyn, and Rhyl; and further northward there are Parkgate, West Kirby, Hoygate, New Brighton, Southport, Blackpool and Fleetwood, and Grange on Morecambe Bay, Douglas and Ramsay in the Isle of Man, Silloth in Cumberland, and Ardrossan, Oban, Rothsay, and Bute in Scotland. On the coasts of Ireland, Bray, Howth, Kingstown, Dundrum, Holtwood, Queenstown, and Glengariff are suitable to those persons who enjoy a mild and equable but rather humid air. Bundoran and Kilkee have the full influence of the Atlantic, as also Portrush and Port Stewart further north with a more bracing climate. Rostrevor and Warrenpoint, though not actually on the sea, are still under its influence and have in addition the advantages of beautiful inland scenery and protection from wind. The best season for these summer localities is from the end of June to the end of September, but they are often good until November, and many of them, as already mentioned, are desirable for certain cases during the whole of the winter.

The localities in France which come nearest to the English seaside resorts are those on the north and north-west coasts, the best known of which are Dinard, Cabourg, Houlgate, Villers-sur-Mer, Trouville, Deauville, Havre, Étretat, Fécamp, Dieppe, Tréport, Berck-sur-Mer, St. Valéry, Boulogne, and Dunkirk. Further east, on the Belgian coast, are Ostend, Blankenberghe, Heyst, and several smaller places, and in Holland are Scheveningen and Zandvoort, near Haarlem, which are already under the more tonic influence of the North Sea. This is still more the case

[1] Macmillan and Co., 1895.
[2] Text-book to Meteorology, 1871, p. 70.
[3] Climate in the Treatment of Disease, Allbutt's System of Medicine 1896, vol. i., p. 269.
[4] The Climates and Baths of Great Britain, p. 7.

with the seaside places on the German coast—viz., Borkum, Nordeney, Baltrum, &c., and the islands of Heligoland, Foehr, and Sylt. All these foreign localities have excellent sands for bathing. Some of them offer a gayer and more amusing life and altogether a peculiar charm which partly depends on the greater brightness and transparency of the atmosphere. These remarks apply especially to Ostend, Scheveningen, and Deauville and at all of them the English visitor meets with a greater change of food, accommodation, people, and manners and customs—circumstances which render such foreign places in certain cases preferable. To some families it is also an advantage that their children can learn a foreign language. In Denmark, Klampenborg, near Copenhagen, and Marienlyst, near Helsingör, are popular summer resorts. Somewhat different from ordinary seaside resorts are the places on the Baltic, being less stimulant but mostly provided with beautiful forests in their immediate neighbourhood. Düsternbrook, Travemünde, Doberan, Warnemünde, the island of Rügen (Putbus), Heringsdorf, Swinemünde, Misdroy, Colberg, Rügenwalde, Zoppot, and Cranz may be named. We may mention here that the example given by England in Margate and a few other places as to seaside hospitals, sanatoria, and convalescent homes is being largely followed on the continent. The French, so far as I know, were the first to move in this important matter on the continent. The Assistance Publique de Paris established, as far back as from 1860 to 1870, the sanatorium for scrofulous children at Berck-sur-Mer; the Œuvre des Hôpitaux Marins established similar institutions at Banyuls-sur-Mer (Pyrenées Orientales) and at Saint Troyan (in the Island of Oléron); and there are besides sanatoria at Saint Pol-sur-Mer, at Pen-Bron (near Le Croisic), at Arcachon, and at Hyères. In Germany the Society for Children's Sanatoria at German Seaside Places has sanatoria at Norderney, at Wyk, on the Island of Foehr, at Gross-Müritz, and at Zoppot. This is a subject of great public importance and well worth the attention of philanthropists and charitable societies. England, which first set the example, ought to be and to remain in front of other nations in this useful work.

Marine winter resorts.—With regard to these we cannot claim for England the same predominance as we have done for summer resorts. Although, as we have already said, the east coast is very useful to many cases also in winter we should not be justified in calling any places "winter resorts" excepting perhaps a few small sheltered spots, the largest of which is at St. Margaret's Bay, near Dover. The principal localities are on the south-east, south, south-west, and west coasts. The furthest to the east are Hastings and St. Leonards. These places are scarcely warmer than London, but the South Downs which send forth a high spur to the sea give to them considerable shelter from the north, north-west, and north-east. They are drier and more stimulating than most places further to the west, but they suffer from keen east winds during spring and are at that period not suitable to delicate invalids. Brighton is too much exposed to the east winds, but it has at least one fairly sheltered walk, and could, by means of grand artificial screens and nobly arranged winter gardens, be rendered more useful to a great number of health-seekers. Dr. Ewart[5] justly remarks in his report on Sussex "that various climates may really be found within Brighton." The autumn and first half of the winter offer to the inhabitants of London the greatest advantages. Brighton is then decidedly warmer than London, especially at night, and is mostly free from mist although the large increase of houses and population has led to a kind of smoke fog on windless days. Southsea has fairly mild winters, and Ventnor, on the Undercliff of the Isle of Wight, maintains its reputation by the very fair results obtained at the Royal National Hospital for Consumption and in the town itself. Bournemouth and Boscombe have in addition to the shelter afforded by their situation the advantage of their fir plantations, but patients entirely confined to their rooms find the air sometimes too still. Salcombe, Sidmouth, Budleigh Salterton, Exmouth, Dawlish, and Teignmouth have fairly warm and equable winters, but their sheltered grounds are rather limited; while Torquay, owing to its bay being surrounded by three high hills, has a much larger space for exercise, not only on level but also on rising ground, from which a variety of the most beautiful views can be obtained. The Channel Islands are characterised by Dr. Symes Thompson and Dr. Lazarus-Barlow[6] as "mild, moist, and relaxing," but they are rather too windy to be used often as winter climates. Jersey is more protected than Guernsey. Rachitic children are very favourably influenced by this climate. Further west Falmouth and Penzance possess perhaps less shelter than Torquay, but they have, as their vegetation manifests, comparatively very mild winters, and in spite of a certain degree of humidity they exercise on most persons a decidedly tonic influence, and many persons even in advanced age suffering from winter coughs enjoy great freedom from their trouble at these localities and are able to spend on most days several hours in the open air. I need scarcely remind you of the favourable descriptions of Falmouth and Penzance given by Sir E. Sieveking[7] and Sir Joseph Fayrer.[8] Dr. W. H. Dickinson[9] likewise speaks in favourable terms of Falmouth. The deaths from tuberculosis are somewhat fewer at Falmouth than at Penzance, but Dr. Dickinson points out that this may be due to the older reputation of Penzance attracting a larger number of tuberculous immigrants. The Scilly Islands, although their climate is very mild and equable, are too much exposed to wind to be suitable to the treatment of phthisis, and they are as yet scarcely used therapeutically. The sea-voyage and the isolation of the islands are great drawbacks. The north coasts of Cornwall and Devonshire are as yet not regarded as winter resorts, but St. Ives and Ilfracombe have in winter certain advantages, although they are less warm and more exposed to wind than the best places on the southern coasts. It is a frequent complaint of sufferers from rheumatism that these troubles are aggravated in Devon and in Cornwall. Minehead and Weston-super-Mare are resorted to almost only in summer; but bronchitic cases mostly do well there up to November and even to December and Dr. Mitchell Bruce[10] in his description of Somerset shares this experience. On the north coast of Cardigan Bay, in North Wales, Pwllheli deserves attention on account of its protection from cold winds. Llandudno, though principally a summer resort, offers also advantages in autumn and spring and to hardier invalids even in winter. More northwards, Grange, on Morecambe Bay, has fair shelter and can be used as a winter resort, and Rothesay, on the Isle of Bute, a favourite summer resort, has mild and equable winters, but it is too humid for most invalids, excepting chronic bronchitic cases. The same is still more the case with the Shetland Islands. Glengariff and Queenstown in Ireland have fair claims to be regarded as winter climates, but they both belong to the equable and humid class. The physiological character of all the coast climates of Great Britain compared with continental places is that they are more or less bracing—those of the east coast eminently so, those of the south and south-west less so, and those of the west of Scotland and Ireland still less. The climates of the south-west coast of England and of the west of Scotland and of Ireland are to be regarded as sedative. They are generally called "relaxing," but this is not quite correct, as they are only so to a very limited class of persons who cannot bear a soft and humid air. On a large number of people these sedative climates exercise a more strengthening influence than those of the east coast. Some people complain of indigestion and biliousness, but as soon as they diminish the amount of their food, especially of meat, limit that of stimulants, and take some slight aperients and regular exercise, the indigestion and biliousness go away and do not reappear.

In comparing the marine winter climates of Great Britain with those of the Riviera, with those of Palermo, Catania, Aci-Reale, and Taormina in Sicily, with Malaga, and with Corfu, our climates are wanting in sunshine, sun-warmth, and in clearness of atmosphere and sky, and they have a greater number of rainy days and hours. There is also much more shelter from cold winds on the Riviera, and the direct sun-warmth is there increased by the reflection from the rocks and the sea. These defects of our climates are to some persons so serious that they cause mental depression and the bodily health may even suffer from this cause. Intermediate between the comparative but by no means unbearable dulness of our coast climates and the luxuriant sunshine with shelter of the Riviera are some localities on the south-west coast of France—viz., Biarritz, St. Jean de Luz, and Arcachon. The two former are quite exposed to

[5] Ibid., p. 375.

[6] Ibid., p. 106.

[7] Brit. Med. Jour., Dec. 14th, 1889.

[8] Ibid., August 29th, 1896.

[9] Allbutt's System of Medicine, vol. iv., p. 402.

[10] The Climates and Baths of Great Britain.

the winds of the Atlantic and have no shelter, but are much more sunny than our coasts. Arcachon is different—it does not lie on the actual coast but on a large inland salt basin which communicates with the Atlantic by a channel. It is protected by large pine-forests which cover the dunes over which the houses of the so-called "Ville d'Hiver" are spread. It reminds us somewhat of Bournemouth.

INLAND CLIMATIC HEALTH RESORTS.

Our inland climates are more limited in character than our sea climates, and the continent has greatly the advantage of Great Britain with regard to different degrees of elevation, of humidity, of insolation, and of shelter. We possess no Alpine and subalpine climates and no glaciers, and few inhabited localities open to health-seekers exceed 1000 feet above sea level, but in Great Britain such elevations exercise in general a more bracing influence than elevations of about 3000 feet in many parts of the Alps do, partly on account of the surrounding sea and partly because there are rarely high mountains in the neighbourhood to prevent a thorough change of air. The summers, at a locality of 800 or 1000 feet elevation, are cooler, the air is more humid and therefore mostly less transparent, the sun is less hot and there is more wind. The effect of these conditions is on many persons less exhilarating, but is more tonic and health-giving on the majority. Where high elevation is required, with glaciers, with rarefied and dry air, and with powerful insolation by day and cool nights, we must recommend Pontresina and other parts of the Oberengadin, the neighbourhood of Zermatt, Montanvert above Chamonix, the neighbourhood of the Aletsch glacier, or Sulden, or Campiglio in the Tyrol. Where somewhat lower elevations between 5000 and 1500 feet are desirable, with the drier and brighter air of the continent, the Alps, the Black Forest, the Vosges, the Hartz, the Auvergne, and the Pyrenees offer endess varieties, combined with forest air or without it, but when only moderate elevation is demanded, from about 250 to 1000 feet, with fairly bracing climate, in pretty country, together with good accommodation, good sanitary arrangements, and nourishing food, England, Wales, and Scotland are well provided. Even within 50 miles of London the number of good localities is very great, although I must own that the accommodation at some of them is rather scanty. I will only mention Tunbridge Wells, Southborough, Frant and the adjacent hills, Mayfield, Crowborough, Tatsfield, East Grinstead, Hindhead, Blackdown, Haslemere, and Liphook, Frensham Common and Thursley Common, Frimley and the Chobham Ridges south of Bagshot, Farnham Common, Crooksbury Common and Crooksbury Hill, St. George's Hill near Weybridge, Epsom Downs, Banstead Downs, Hayward's Heath, Cuckfield, and various places on the ridges between Redhill and Sevenoaks. Further away we have Buxton and other places in the district of the Derbyshire Peak, Ilkley and its neighbourhood, Harrogate, Gilshead, the Malvern District, the neighbourhood of Dartmoor, the Downs near Clifton, and various localities on and near the Mendips. Then there are the moorlands and high grounds in Cornwall between the Lizard and Redruth and between Bodmin and Launceston, some ground near Exmoor, Marlborough Downs, Ilsley Downs near Newbury, Highclere, and Kingsclere. These and many more localities which I could mention are partly to be regarded as health resorts of the future. The Lake District, with Keswick, Grasmere, Ambleside, Bowness, Windermere, Coniston, Ulleswater, and other places, offers by its beautiful scenery opportunities for pleasure as well as health. These places can scarcely be called elevated health resorts, although they are surrounded by mountains, and their character is more sedative than bracing. Wales has many bracing health resorts, such as Llandrindod, Llangammarch, Llanwrtyd, Lake Vyrnwy, Elan Valley, Pen-y-Gulsyd, Llanberis, Capel-Curig, Beddgelert, and Trefriw. Among the less bracing but still good summer resorts are Bettws-y-Coed, Llanrwst, Llangollen, Dolgelly, and Festiniog. Wales offers opportunities for further development. This remark applies still more to the Highlands of Scotland, the eastern portion of which has excellent climatic features. At present the principal localities are Braemar, Ballater, Grantown, Carrbridge, Kingussie, Forres, Strathpeffer, Blair Athol, Pitlochry, Tummel Bridge, Inversnaid, the Trossachs, Crieff, Moffat, and Bridge-of-Allan. Ireland, too, has many inland places which may be used as climatic resorts, such as Killarney, Mallow, Blarney, Enniskerry, Woodenbridge, and Dundrum, but they are less bracing.

I have detained you already long, but I must ask you to allow me one or two other remarks. In a leading article in the *Times* a few weeks ago, the climate of England was designated as a "meteorological jumble of unpleasant things," and Americans often tell me that in England we have "no climate but only weather." I have in answer often endeavoured to give a definition of a "good climate" and have repeatedly said: "A good climate is that in which all the organs and tissues are kept evenly at work in alternation with rest. A climate with constant moderate variations in its principal factors is the best for the maintenance of health. It calls forth the energy of the different organs and functions, their power of adaptation and resistance, and keeps them in working condition." Such are the climates of England and they belong to the most health-giving in the world. They produce the finest animals, the finest trees, and the finest men and women, and are most conducive to health and longevity. There is sometimes, it is true, a storm or a series of unpleasant winds, but if the resisting powers of the organism have been kept in good condition by the habitual frequent changes of meteorological circumstances an occasional storm does no harm, while if the resisting powers have not been kept up by frequent, sometimes unpleasant, variations in the meteorological conditions a storm might lead to disease. The climates of England are, it is true, not the most exhilarating and agreeable, but the brightest climates, like those of Egypt, Spain, Italy, and Greece, are certainly not the best for health and strength. We must endeavour to make the best of our climates by counteracting their defects and supplementing them with pleasurable additions. Where there is absence of shelter from cold winds we must place high glass screens or high screens painted white in order to reflect the rays of the sun and thus increase the warmth on the sheltered walk. A winter garden, if possible, would be a great advantage, but if this is impossible, agreeable walks, level as well as gently rising, must be made and they must be rendered attractive by shrubs and flowers and must be provided with comfortable seats. Amongst these there must be a sufficient number of seats divided into four parts by high and covered partitions to give shelter from the prevailing wind and to a great degree also from rain. This has been urged again and again and has been carried out, I am happy to say, at several localities, but neglected hitherto by many others and amongst them at some places which have otherwise many natural advantages and attractions but which owing to frequent occurrences of high winds urgently require such seats. In a recent visit to Cornwall I was sorry not to find sheltered seats at promising places such as Falmouth and Penzance. It is, I must repeat it, of the utmost importance that arrangements should be made at all health resorts that the invalid can spend almost the whole day without fatigue in the open air either sitting or in a reclining position and now and then taking a short walk. It is not only in tuberculosis that "open-air treatment" is very useful but in almost every chronic complaint. I have for many years recommended it with due precautions in anæmia, in neurasthenia, general debility, tendency to rheumatic and catarrhal affections, and so on. Good hotels with cheerful arrangements are another necessity. They ought to be provided with light and sunny halls where visitors can take tea or coffee, listen to music, chat with one another, and play chess, draughts, cards, &c. The garden and grounds ought to be provided with comfortable sheltered seats. A good cook ought also to be regarded as essential. These matters are more important than many of us are inclined to admit. This was forced upon me again at the beginning of the year, when I stayed for some weeks at the Riviera Palace Hotel at Cimiez, at Cap Martin, and at San Remo. There I met with several people who might as far as their health was concerned have stayed at English winter resorts to which they had been directed by their medical advisers. Some of these persons had left the English resorts on account of the dulness, of the absence of cheerful, social rooms and halls, of music, and of flowers, and others because the cooking had not been to their taste. But even if everything were done to render our climates as useful and agreeable as possible, it can scarcely be denied that there are many cases of chronic rheumatism or gout, especially in debilitated persons, in which the drier, warmer, and sunnier climates of the Riviera are decidedly preferable. It must be further acknowledged that there are many people in whom the resisting power to rough the meteorological influence of our climates is either permanently reduced, by senility or other organic changes, or only temporarily, for instance by acute

illnesses such as rheumatic fever or pneumonia, and that in such cases we must often recommend similar climatic changes. Furthermore, it cannot be disputed that in many cases of nervous prostration, of exophthalmic goitre, of asthma, especially bronchial, in young people, long stays at elevated sunny regions, in winter as well as in summer, offer advantages over our English climates. Lastly, there are the cases which require long absence from home with complete change or mental rest. In these we must recommend foreign climates, travel, or sea voyages, or some other form of entire change.

I should have liked to say something about the selection of climates suitable to different classes of morbid conditions, but this would detain you too long since I should be obliged to make so many remarks about the necessity of prescribing different localities for persons suffering from the same disease but possessing different physical or mental constitutions and different complications. Every one of you must, like myself, often feel great difficulty in selecting the best locality and the best course to be adopted on account of individual circumstances connected with the case. I venture, however, to add a few words on this subject. In selecting a locality we must always bear in mind not only the purely climatic qualities of the place but also the nature of the accommodation there, including the cooking, the class of people frequenting it, the social conditions and amusements, and the manner in which the sum total of agencies, climatic and social, is likely to influence the person who asks our advice. Our wish should be that the invalid should derive as much benefit as possible. If we have reason to think that he or she will be satisfied with the best climatic conditions, good medical advice, and fair accommodation alone, our decision will be comparatively easy. If, however, we have to deal with an invalid to whose mental condition the amusements and all the social aspects of a place are essential, we must endeavour to find one where these are combined with good climatic and hygienic qualities, and we may have even to sacrifice some climatic advantages for certain invalids if we have reason to suppose that they will become depressed and unhappy at a certain climatically suitable place. Experience abundantly shows us that however good the climatic elements may be mental dulness causes in certain types of people manifold functional troubles, such as want of appetite, dyspepsia, imperfect action of the bowels, weakness and irregularity of the heart's action, inability to take exercise, sleeplessness, and loss of weight. Every one of you has probably met with persons who are happy, who can work, who can take exercise, who eat and sleep, who have a clear urine and regular action of the bowels, and who gain weight, if they are at a warm and sunny locality and have flowers and music; while on the contrary they become depressed, they lose their appetite, they become sleepless, they cannot work, they have a urine loaded with lithates, they lose weight; or they occasionally become morbidly fat, if they are obliged to be at a locality which is cold, damp, misty, sunless, and without music, flowers, or butterflies. There are many persons, principally so-called "people without nerves," who cannot understand and appreciate such differences in the condition of delicate persons. These conditions, however, are not imaginary, they are fearfully real and ought not to be overlooked in giving advice about climatic resorts. Such conditions as these must move sometimes the balance in favour of continental places, although we know that, were it not for the invalid's peculiar mental conditions and tendencies, an English resort would be equally good or even preferable. For these reasons it is important to make our English resorts as agreeable as possible by accommodation, food, music, promenades, and shelters

Many other circumstances partly hinted at before, which have nothing to do with purely climatic matters, demand our consideration. There are, for instance, nervous persons who become excessively frightened by very slight functional disorders and, in consequence, become almost sleepless and sometimes sick and really ill, until they can be reassured by a medical attendant who has their confidence. In such cases we must always think of a place where a medical man resides who is likely to be sympathetic to our invalid, and to gain authority over the patient and to use it for his good. In such cases the medical man is of the first importance. The climatic resort may not have any specially good qualities, but the mental influence exercised by the medical adviser will more than balance the climatic defects of the place. The physician is, indeed, a very important part of every health resort and mode of treatment, although invalids are often slow in seeing this. The physician can and must prevent patients from exposure, from over-exertion, from social over-excitement, and he can teach them how to avail themselves to the utmost of the advantages of a place. We meet in our daily work with many other matters which require to be weighed in recommending climatic resorts. We have, for instance, often to think of a place where a patient may find suitable occupation, for there are many persons whose chronic ailments we cannot remove without the help of mental influence. In some instances we require work to make the invalid forget his bodily or mental troubles. In many others where we cannot make use of the ordinary kind of work, we require other agreeable occupation of the mind, including such things as the learning of languages, the reading of easy books, or the study of botany, geology, or some other science. We must avail ourselves of the powerful influence of hope and we must not despise the judicious and properly restricted use of all agents which act pleasurably on our senses. Such means as these stimulate the circulation in the brain and we often succeed more or less in improving by them the nutrition of this organ which again acts most powerfully on the heart and on the blood-vessels, especially the vaso-motor portion, and often effects very remarkable changes in all the organs of the body and causes improvement or cure of many chronic ailments.

ON THE RESPECTIVE PARTS TAKEN BY THE URINE AND THE FÆCES IN THE DISSEMINATION OF TYPHOID FEVER.[1]

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AT the present day the view that typhoid fever is propagated by means of the excreta is unanimously held. It is probable also that in the opinion of the great majority the fæces are still regarded as the chief, if not the sole, means whereby the dissemination of the disease takes place. Now, it is of course true that the fæces are to a considerable extent responsible for spreading the disease, but recent work has shown that another excretion—namely, the urine—is often intensely infectious in typhoid fever, and that it therefore must play a great part in spreading the disease.[2] From a hygienic point of view it is obviously of great importance that we should be able to estimate, even approximately, the danger of infection which may be expected from each of these excretions, and especially that we should have accurate knowledge as to the period of the disease at which each attains its maximum virulence. It is proposed therefore in this paper to sum up the actual state of our knowledge concerning the infectious nature of the urine and fæces respectively, at the same time adding some further observations which bear upon this subject.

PART I.—THE FÆCES.

Before stating the results of the latest observations which have been made on typhoid stools it will be well to recall some of the earlier ones, for it is upon these—though now known to be incorrect—that the present general idea of the intensely infectious character of typhoid stools throughout the whole course of the disease in reality depends.

The typhoid bacillus was discovered by Eberth[3] in 1881 and first cultivated by Gaffky[4] in 1884. Gaffky himself did not profess to be able to demonstrate the presence of the bacilli

[1] The expenses in connexion with this research were in part defrayed by a grant from the Royal Society.

[2] It is not contended, of course, that other matters, such as sputum or pus, may not occasionally be at fault, but dissemination through them must be extremely rare and need not now be discussed.

[3] Virchow's Archiv, 1880, Band lxxxi.; 1881, Band lxxxiii.

[4] Mittheilungen aus dem Kaiserlichen Gesundheitsamte, 1884, Band ii.

in the stools but his immediate followers satisfied themselves that it was a simple matter. Thus Pfeiffer[5] (1885), Merkel and Goldschmidt[6] (1887), Karlinski[7] (1889), and Wiltschaur[8] (1890), and others all believed that they could find typhoid bacilli in the stools without any great difficulty and for the most part during all stages of the disease.

These results, presenting no obvious improbability and moreover harmonising exactly with Koch's recent demonstration (1883) of the presence of innumerable comma bacilli in the intestines in cases of cholera, gained a ready acceptance, a credence, too, which they have for the most part retained until the present day. It was soon apparent, however, to bacteriologists that serious errors had been made and that the above observers had confounded the typhoid bacillus with the bacillus coli communis, a bacillus then but recently discovered. It followed, therefore, that the conclusions which had been arrived at up to that time were valueless, a deduction, moreover, directly confirmed in 1895 by the patient observations of Walthelet.[9] This observer, following exactly the methods of isolation of the earlier observers but using more delicate methods of differentiation, was only able to find the typhoid bacilli in the stools of four out of the 12 typhoid patients whom he examined and in only four out of 51 observations, a result the very opposite of that which had formerly been obtained. It was obvious, therefore, that the earlier observations were totally incorrect. It was not so clear, however, that Walthelet's inability to find the typhoid bacilli in the stools meant that these were really absent. It seemed, on the contrary, much more probable that their apparent absence was really due to imperfections in the media and technique employed, for it seemed impossible to believe that the bacilli were really absent from the stools even in the early period of the disease. No progress could, however, be made until a medium had been found on which the typhoid and colon bacilli would grow with a somewhat dissimilar appearance, for in this way only could the colonies of typhoid be picked out with some certainty from the innumerable colonies of colon bacilli always present in stools. This deficiency was supplied by Elsner[10] who in 1895 introduced his new medium for the separation of the typhoid and colon bacilli. Grown on this medium, which consists of potato-gelatin with 1 per cent. potassium iodide, ordinary bacillus coli communis forms after 24 hours large brown colonies, while the typhoid bacillus grows much more slowly and forms minute transparent colonies visible only after 48 hours. The method, however, is not ideal, for as a matter of fact some varieties of bacillus coli grew on it in almost exactly the same manner as the typhoid bacillus. Still, it marked a great step in advance, if only the bacilli which form the suspected colonies are carefully tested after isolation to *prove* them to be typhoid—a precaution not invariably taken by those who have worked with this medium.

What, then, are the most recent results which have been obtained from typhoid stools using Elsner's medium as the means of isolating the typhoid bacilli? In this connexion the results of Pollak,[11] Jemma,[12] and Richardson[13] require to be carefully considered. These observers tested with great care the suspicious colonies found on the Elsner plates and their results may be accepted accordingly. It is unfortunate that the same cannot be said of the work of Brieger,[14] Chantemesse,[15] and Sterling.[16] The testing of these observers was inefficient or absent and in all probability therefore many colon bacilli were included among those termed by them "typhoid." Their results need not detain us.

Passing now to the observations of the three former observers we find that (1) Pollak (Prague, 1896) examined 13 typhoid cases and in all of them in observations made during the first and second weeks of the disease he was able to demonstrate the presence of typhoid bacilli in the stools; (2) Jemma (Genoa, 1897) records 20 similar cases and in all of them, though not invariably at the first attempt, he was able to find the bacilli in the stools within the first two weeks of the disease; and (3) Richardson (Boston, 1897) records four cases in which he found the typhoid bacilli in the stools at the first attempt on the fifth, eleventh, eleventh, and twelfth days respectively. He had, however, in addition, one negative result on the sixth day. It will be seen, therefore, from the above results that at the present time we are in a position to state with confidence that in the early period of typhoid fever—that is to say, during the first two weeks—the typhoid bacilli can be demonstrated in the stools if sufficient care and trouble be taken.

The question, however, how long the bacilli remain in the stools and, therefore, how long they remain infective has not as yet been systematically attacked. Only a few detailed observations have as yet been made in this connexion and any results hitherto obtained are somewhat discounted by the fact that no care was taken to obtain the fæces without any admixture of urine. Now I have shown[17] that the urine may contain typhoid bacilli as early as the fifteenth day, and hence if no special care be taken to use uncontaminated fæces a positive result may be obtained really due to the presence of the typhoid bacilli in the urine and not in the fæces. Under these circumstances it seemed advisable that further careful observations should be made during the later stages of the disease and accordingly the following stool examinations were undertaken.

The method pursued was as follows. The stool having been obtained without contamination with urine was diluted in broth and then from two to six drops of the dilution were spread over the surface of two, or often three, Elsner plates. These were incubated at 20° C. and were inspected after 24, 48, and 72 hours. All suspicious colonies were further examined by making a gelatin shake culture. If gas bubbles formed in this after 24 hours the colony was evidently not typhoid. If no gas formed it was examined further. Finally, no micro-organism was accepted as typhoid unless it answered the following tests:—(1) morphology: the microbes consisted of long rods with some longer forms, exhibiting (2) marked motility, possessing (3) 8–12 cilia; (4) shake gelatin and shake dextrose gelatin (2 per cent. sugar) cultures gave no gas even after one month; (5) peptone broth cultures yielded no indol even after one month; (6) litmus milk cultures showed no coagulation even after one month and the reaction became slightly acid within 24 hours; (7) serum reaction: positive result. The serum used in Cases 1 and 2 was that of a guinea-pig immunised against typhoid, a dilution of 1 in 1000 being used. In Case 3 (both urine and fæces) the serum from a typhoid patient was used. The isolated bacilli were found to clump with it up to the same dilution—namely, 1 in 1000—as did the laboratory typhoid culture. Lastly, the bacilli isolated from the urine and fæces of Case 3 were tested by (8) the media of Proskauer and Capaldi, I. and II., and they reacted to each like typhoid. It may be well here to add that the Elsner medium used was repeatedly tested to see whether typhoid bacilli did grow on it in the typical manner and that this was always found to be the case. Any negative results obtained, therefore, cannot be attributed to faulty media.

Proceeding on these lines the results which I have obtained are as follows. They are well shown in Table I.

Briefly put, the results which I have obtained from the 29 stools examined may be thus summed up: 1. Three patients were examined on or before the seventeenth day of the disease, and in each at the second examination, on the eleventh, fourteenth, and seventeenth days respectively, typhoid bacilli were found in the stools. In one case many were present, in one case in fair numbers, and in the last case but very sparsely. These were the only cases examined early in the disease, and the positive results obtained agree with those of Jemma, Pollak, and Richardson. 2. The remaining stools were obtained as follows: (*a*) seven during the later stages of the initial attack on the following days—eighteenth, nineteenth, twenty-first, twenty-fifth, twenty-fifth, twenty-eighth, and thirty-second days; (*b*) one between the attack and first relapse; (*c*) five during a first relapse at all stages of the same, and (4) seven during convalescence on the following days after final defervescence—the third, fourth, sixth, tenth, eleventh, thirteenth, and twentieth. Of these 20 observations made during the later periods of the disease only one gave a positive result—

[5] Deutsche Medicinische Wochenschrift, 1885, p. 500.
[6] Centralblatt für Klinische Medicin, 1887, p. 393.
[7] Centralblatt für Bakteriologie, 1889, p. 65.
[8] Ibid., 1890, p. 279.
[9] Annales de l'Institut Pasteur, 1895.
[10] Zeitschrift für Hygiene, vol. xxi., 1896, p. 25.
[11] Centralblatt für Innere Medicin, 1896, p. 785.
[12] Münchener Medicinische Wochenschrift, 1897, No. 33.
[13] Brit. Med. Jour. 1897, Dec. 25th, p. 1842; Boston Medical and Surgical Journal, 1897, p. 443.
[14] Deutsche Medicinische Wochenschrift, 1895, p. 835.
[15] Comptes Rendus, 1896.
[16] Centralblatt für Bakteriologie, Band xxii., 1897.
[17] Transactions of the Royal Medical and Chirurgical Society, vol lxxx. 1897.

viz., the one taken shortly before a relapse occurred. In the other 19 stools no typhoid bacilli could be demonstrated.

Consideration of results.—There are not many observations which it is possible to compare with the above, for workers in this field have for the most part confined themselves to the early periods of the disease. Those also which may be collected from the literature must to a certain extent be discounted when positive, owing to the fæces not having been carefully separated from the urine, a serious source of error thereby being introduced. With this reservation it may be noticed that Jemma,[18] in addition to his numerous positive observations within the first two weeks of the disease, also had two positive results on the fifteenth and eighteenth days, but six negative results on the twenty-second, twenty-fourth, twenty-seventh, thirtieth, thirtieth, and thirty-third days respectively, and also once in a relapse two days before the temperature reached normal; Pollak[19] also quotes three positive results on the seventeenth, nineteenth, and twentieth days, and in two out of three cases was able to find the typhoid bacilli during a relapse; Lazarus[20] examined the stools of 16 convalescents and found the bacilli in the stools in only three; and lastly, Richardson,[21] who examined 23 stools from 13 convalescents, was only able on one occasion (the day following final defervescence) to find the typhoid bacilli. All the other stools yielded a negative result.

TABLE I.—*Observations made on Typhoid Stools (obtained separate from urine) for the most part in the Later Stages of the Disease.*

No.	Age and sex.	Date.	Day of disease.	Character of stool.	Result.
1	24, F.	Jan. 20, 1898	8th	Semi-solid	—
		,, 23, ,,	11th } Attack	,,	+
		,, 27, ,,	15th }	,,	—
		Feb. 16, ,,	T. N., 20 days	Solid	—
2	16, M.	Jan. 17, ,,	13th	Semi-solid	—
		,, 21, ,,	17th } Attack	Solid	+
		,, 29, ,,	25th }	,,	—
		Feb. 5, ,,	32nd }	Semi-solid	—
		,, 11, ,,	T. N., 5 days	Solid	—
		,, 14, ,,	? 1st day of a relapse	,,	—
		March 4, ,,	T. N., 6 days	Semi-solid	—
3	22, M.	Oct. 29, 1898	9th	Peasoupy	—
		Nov. 3, ,,	14th } Attack	,,	+
		,, 7, ,,	18th }	—	—
		,, 10, ,,	21st }	Semi-solid	—
		,, 14, ,,	T. N., 4 days	,,	+
		,, 20, ,,	1st day of relapse	Solid	—
		,, 24, ,,	5th ,, ,,	,,	—
		,, 28, ,,	9th ,, ,,	,,	—
		Dec. 6, ,,	T. N., 3 days	,,	—
		,, 13, ,,	T. N., 10 days	,,	—
4	9, M.	,, 30, 1897	19th day	Peasoupy	—
		Jan. 5, 1898	25th day	,,	—
		,, 28, ,,	T. N., 13 days	Formed	—
5	42, M.	Dec. 18, 1897	2 days before end of long relapse	Semi-solid	—
		,, 31, ,,	T. N., 11 days	Solid	—
6	18, M.	Jan. 2, 1898	T. N., 4 days after relapse	Semi-solid	—
7	21, M.	Dec. 13, 1897	28th day	,,	—

* + signifies a positive result, typhoid bacilli being found in the stools. — signifies a negative result, typhoid bacilli not being found. T. N. = Temperature normal.

REMARKS.—*Case 1* was a very mild attack of typhoid fever. The temperature reached the normal on the sixteenth day.—*Case 2.* The attack was severe, in that the fever lasted for 32 days. Later phlebitis occurred. There was no diarrhœa and no typhoid state.—*Case 3.* The attack lasted 21 days and was followed by a relapse. Pyuria was present from Nov. 19th to Dec. 6th. There were many typhoid bacilli in the urine during this condition, but none in the fæces.—*Case 4.* This was a severe attack, the temperature remaining high for 35 days. There was much diarrhœa.—*Case 5.* The patient had a long attack, followed after an interval by a long relapse.—*Case 6.* The patient had an attack of moderate severity followed by one relapse.—*Case 7.* In this case the temperature reached normal on the twenty-ninth day.

It will be noticed, therefore, that former observers also found considerable difficulty in demonstrating the typhoid bacilli in the stools late in the disease and during convalescence—a fact which is brought out more clearly when we remember that probably in many of their so-called positive results the bacilli found were not really in the fæces but in the urine. It would seem, then, from a consideration of all the cases that we are justified in stating that it is extremely difficult and as a rule impossible to find the typhoid bacilli in the stools in the later periods of the disease (unless in connexion with the commencement of a relapse) and also during convalescence, though in the early stages they can as a rule be found with comparative ease. Negative results, however, such as these are notoriously fallacious. We must therefore consider them very carefully to see what conclusion may legitimately be drawn from them. The question to be answered, in fact, is this: Are we justified in concluding that because typhoid bacilli cannot be found in the stools in the later stages of the disease and during convalescence therefore they are really not there?

To this question a negative answer must be at once returned. We must remember first that our method for demonstrating the typhoid bacilli in stools is at the best unsatisfactory. It consists, as we have seen, in taking a trace of the stool and then diluting this in broth and finally making plates with this dilution, this great dilution being necessitated by the enormous quantities of colon bacilli present, so that were it not done the individual colonies could not grow isolated from each other and thus be distinguished. Now, it is obvious that unless the typhoid bacilli were present in considerable numbers they might easily escape detection since they might fail to be present in the minute trace of stool which alone we are able to examine. (This, for example, must almost certainly be the explanation of the failure to find the typhoid bacilli on the eighteenth and twenty-first days of Case 3, since four days later, previously to a relapse, a recrudescence occurred and they were again present in large numbers.)

Again, in support of the views that the bacilli are very probably present in the stools in small quantities for some considerable time after they cease to be demonstrable there is the fact that post mortem typhoid bacilli ca often be found in the gall-bladder even in pure culture—at a time, that is to say, when they can no longer be found in the fæces. Now, these would almost certainly pass with the bile into the intestinal canal and hence might reasonably be expected in the fæces. This argument, however, must not be pressed too far, for it was shown some little time back by Walthelet that if colon and typhoid bacilli were grown together in broth in a very short time the colon bacilli alone survived, and again, that if the typhoid bacillus was inoculated into a broth tube containing the toxins of bacillus coli it would not grow, and speedily died. Now these are not unlike the conditions which obtain in the alimentary canal in typhoid fever. It is well known that in this disease the virulence of the colon bacillus becomes greatly enhanced, and it may be that when the disease has run a certain course the typhoid bacilli may in favourable cases be first impeded in their growth and finally rapidly destroyed in the intestinal tract through the action of the colon bacillus. If this be so our inability to find them in the stools later in the disease would find a ready explanation. This, however, as yet is speculation and at the present moment the following conclusions only would seem to be justified with regard to the presence of the typhoid bacilli in the stools.

General conclusions.—The stools of a typhoid patient separated from the urine contain typhoid bacilli in fair quantities, demonstrable by our present methods up to about the beginning of the third week. After this date the number begins rapidly to diminish, so that our methods no longer avail as a rule to find them. If, however, a relapse occurs it may be preceded by a recrudescence of the typhoid bacilli which can then be found again in the fæces, but during the greater part of the relapse itself and throughout convalescence the typhoid bacilli cannot be found in the stools.

It follows from the above that the stools of a typhoid patient must always be regarded as highly infectious during the early stages of the disease, and may again become so in connexion with the commencement of a relapse. This highly infectious character, however, soon becomes greatly

[18] Loc. cit. [19] Loc. cit.
[20] Berliner Klinische Wochenschrift, 1895, Dec. 9th, p. 1068.
[21] Loc. cit.

diminished, though how soon they become absolutely harmless cannot as yet be settled by bacteriology.

Finally, when typhoid bacilli have been described in the fæces long after defervescence—e.g., in Lazarus's case, 41 days after—we are dealing almost certainly with fæces contaminated with urine and not with pure fæces.

PART II.—THE URINE.

The possibility of the urine being infectious in typhoid fever is not altogether a recent suggestion. The view seems to have been originally put forward by Seitz[22] in 1886 and since this date various other observers have drawn attention to the subject. As I pointed out, however, in a paper communicated to the Royal Medical and Chirurgical Society in 1896[23] no definite reliance could be placed on any of the earlier observations for the simple reason that the tests up to that time applied to the isolated bacilli were not sufficient to differentiate them from bacillus coli communis and that many of the so-called typhoid bacilli obtained from urine were in all probability nothing more than colon bacilli. I showed, however, from observations then recorded (1) that after eliminating this source of error, without doubt in some, though not in all, cases of typhoid fever true typhoid bacilli do occur in the urine; also (2) that "when the bacilli do occur they only occur towards the end of the disease—that is to say, during the third week or later: their presence, therefore, could rarely if ever be of assistance in diagnosis"; and (3) that "when they do occur they are present in considerable numbers ..... and that not uncommonly if a drop of such urine be dried and stained the bacilli may be at once seen under the microscope; occasionally also the urine may be rendered turbid by the enormous quantities of bacilli passed."

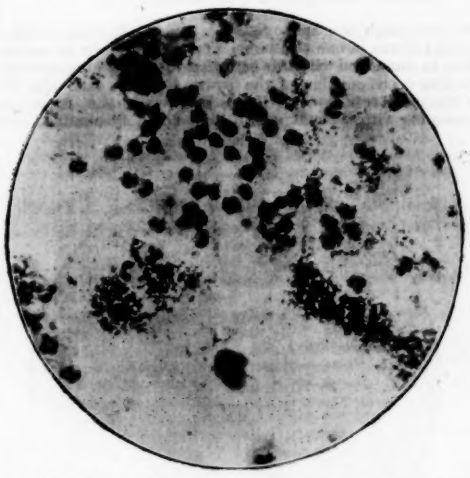
These results being unexpected, but nevertheless, if true, of some importance, it becomes interesting to inquire whether they are borne out by later observations. This indeed has been the case. Thus Richardson[24] in 1898, working in Professor Wright's laboratory in Boston, examined the urine of 38 cases of typhoid fever, and in nine of them—i.e., in 24 per cent.—found the typhoid bacilli. He also concluded "that when they do occur they are always present in large numbers and in practically a pure culture, and that they first appear in the later stages of the disease and persist often far into convalescence." It will be seen at once that these independent results of Richardson almost exactly agree with my own conclusions.

With regard also to the possibility of such enormous quantities of typhoid bacilli occurring in the urine as to render it turbid we have direct confirmation given by the observations of Petruchsky.[25] He examined 50 typhoid urines with regard to this point alone and in three of them he found this dangerous phenomenon to occur. Thus he found that in one case the urine became "turbid with bacilli" towards the end of the attack and remained so for 10 weeks, only ceasing to contain typhoid bacilli seven weeks after final defervescence. In the second case the turbidity first occurred 10 days after defervescence and the bacilli continued present for four and a half weeks. Lastly, in the third case the bacilli were first observed six days after the temperature had become normal and remained present in this case only eight days. There can, therefore, no longer be the slightest doubt that typhoid bacilli may not very infrequently occur in the urine in extraordinary quantities—in one of Petruchsky's cases, indeed, they amounted to 172,000,000 bacilli in each cubic centimetre of urine.

As, however, the condition is not yet fully recognised it may be well to record yet another example of it, in this case associated with a certain amount of pyuria. I am much indebted to Sir Dyce Duckworth for his kind permission to publish notes of the case. They are as follows.

"The patient, aged 22 years (referred to in Table I. as Case 3), was admitted into St. Bartholomew's Hospital on Oct. 28th, 1898, suffering from typhoid fever, this being the eighth day of his disease. On admission his temperature was 104° F., he was somewhat deaf and also rather drowsy. There was a most copious eruption of rose spots. The abdomen was a little distended and the patient complained of slight abdominal pain. The spleen was not felt. The urine was acid and contained no albumin. Next day the serum reaction was obtained at a dilution of 1 in 200. The fever ran its usual course, remaining up for some time and then gradually falling by lysis. It reached normal on the twenty-first day, on Nov. 10th. The temperature then remained down for nine days, but on the tenth day (Nov. 20th) it began to rise again and the patient had a mild relapse. This lasted from Nov. 20th to Dec. 4th, after which the temperature remained down for good and the patient made a rapid recovery. The condition of the urine was as follows. It was natural on admission and apparently remained so until the day before the relapse on Nov. 19th. On this date, however, it was noticed that the urine though still acid contained pus and also showed a cloud of albumin. Bacilli were also noticed under the microscope; no bacteriological examination was, however, made. The pyuria continued throughout the relapse and on Nov. 29th the urine was examined in greater detail. It was then found to be neutral, to contain a cloud of albumin and also a little pus, enough to form a slight sediment at the bottom of the urine-glass. It was, however, also turbid, a condition not due to the small amount of pus present but to the fact that under the microscope it was found to be swarming with bacilli. These on cultivation answered correctly to all the tests enumerated at the commencement of this paper and proved themselves to be, therefore, a pure culture of the typhoid bacillus. On Dec. 3rd, the last day of the relapse, the condition of the urine was unchanged, except that the bacilli in the urine were now all "clumped." There had been an indication of this on Nov. 29th, but now it was very marked (*vide* Fig. 1). On Dec. 6th the temperature had been normal for two days. The urine still contained a little pus, a faint cloud of albumin, and many typhoid bacilli, still in clumps (*vide* Fig. 2). A week later, however, the condition had altered, for on Dec. 13th the urine was clear, neutral, 1012, and contained no albumin, no bacilli, or pus. On Dec. 17th the urine was again examined. It was natural, contained no albumin or pus, and cultures again showed the absence of typhoid bacilli."

FIG. 1.



A drop of the urine in Case 3, passed on Dec. 3rd (the last day of the relapse), dried on a coverglass and stained. Innumerable typhoid bacilli in large clumps are seen, also many pus cells. (Photographed by Dr. Norman; × 400.)

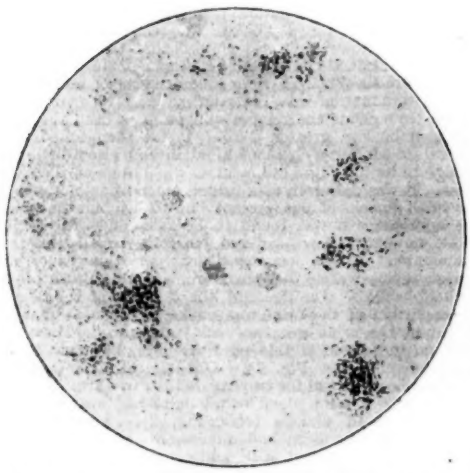
It will be seen, therefore, that in this patient the pyuria began on the thirtieth day of the disease, just before the commencement of the relapse, lasted through the relapse, and persisted for some few days into convalescence. On three occasions on which the urine was examined bacteriologically during this condition it was found to be swarming with a pure culture of typhoid bacilli, and it is probable also that the latter made their first appearance with the pus on Nov. 19th, for the urine was then first noticed to contain bacilli, though their real nature was not recognised until later. Moreover, the bacilli persisted into convalescence

[22] Bakteriologische Studien zur Typhus-Aetiologie, München, 1886.
[23] Transactions of the Royal Medical and Chirurgical Society vol. lxxx., 1897.
[24] Journal of Experimental Medicine, vol. iii., May, 1898.
[25] Centralblatt für Bakteriologie, vol. xxiii., April, 1898.

and finally disappeared with the pus. Probably, therefore, the urine contained typhoid bacilli for about three weeks.

The case is of interest, then, in showing how enormous may be the number of typhoid bacilli in the urine. It also shows that though pyuria in typhoid fever is generally due to infection by bacillus coli communis, yet it may be brought

FIG. 2.



A drop of the urine in Case 3, passed on Dec. 6th—i.e., two days after the temperature had fallen to normal for good, dried on a coverglass and stained with gentian violet. The urine was obtained immediately after it had been passed and the preparation was at once made. Many clumps of typhoid bacilli are still seen but only a few pus cells. (Photographed by Dr. Norman; × 350.)

about through the agency of the typhoid bacillus itself, as indeed it was in one of Blumer's cases.[26] It may be noticed, also, in connexion with this case that the stools were examined on four occasions during the pyuria—and in each case with a negative result—that is to say, while the urine was swarming with typhoid bacilli none could be obtained from

FIG. 3.

Also from the urine of Dec. 6th; from the same specimen as Fig. 2. A clump of typhoid bacilli is shown under a higher power. The rod-shaped bacilli are well seen. (Photographed by Dr. Norman; × 1000.)

the stools (at this later stage of the disease). The importance of collecting the stools uncontaminated by urine is thus emphasised. It is important also to note that the blood was examined for the presence of typhoid bacilli on Dec. 3rd and Dec. 6th, but on each occasion with a negative result. This tends strongly to show that the very copious excretion of typhoid bacilli in the urine in these cases must be due to some local change in the urinary tract and not to a filtration of bacilli from the blood.

It will be instructive now to add together all the most recent observations made on typhoid urines, so that by a general survey of a larger number of cases we may find out in what proportion of cases and under what conditions the bacilli occur in the urine.

1. *In what proportion of cases does the condition occur?*—To answer this question we have the following observations:—

TABLE II.

—	Number of cases observed.	Positive results obtained.	Negative results.
Richardson	38	9	29
Horton-Smith... ...	12	4	8
Blumer	10	2	8
Total	60	15	45

Thus typhoid bacilli have been observed at some period of the disease in the urine in 15 out of 60 cases, or in just 25 per cent. of cases.

2. *How often may we expect the urine to contain the bacilli in such enormous quantities as to render it turbid?*—In this connexion we have the following data:—

Petruchsky	out of	50	cases found it in	3
Horton-Smith	,,	12	,, ,,	2
Blumer	,,	10	,, ,,	0
		72		5

(Richardson does not refer to the point in his paper.)

Thus out of 72 cases examined this condition has been present in five, giving a percentage of seven for all cases of typhoid fever, or if we assume that it never occurred in any of Richardson's 39 cases (since he does not refer to the matter at all) we get a total of 111 cases examined with five positive results, giving a percentage of 4·5. It is probable, therefore, that we shall not be far wrong if we assume that this very serious complication occurs in about 5 per cent. of all typhoid cases.

3. *Date of the first appearance of the bacilli.*—In nine of the 15 positive cases recorded above the date of the first appearance of the bacilli was determined with accuracy. This occurred on the fifteenth day (twice), on the twenty-fourth, thirty-second, thirty-sixth, and thirty-ninth days (once each), and also on the fifth, sixth, and tenth days of the disease after final defervescence—that is to say, it always first occurs late in the disease and has not as yet been observed earlier than the fifteenth day.

4. *Duration of the phenomenon.*—With regard to the length of time during which the bacilli may persist in the urine if no treatment be adopted and if the patient survive we have the following facts. Of 10 such cases recorded the duration of the bacilluria has been in each respectively—8 days; 21 days; 25 days; 30 days; 70 days; and + 13 days; + 18 days; + 19 days; + 34 days; and + 40 days (the + in the latter five cases signifying that the patients still continued to excrete bacilli when the observations were discontinued). It may therefore be said that while the duration may vary within somewhat wide limits, the excretion of the bacilli usually lasts for some considerable time, extending often far into convalescence. Indeed, so prolonged may the condition be that several of the patients have actually been discharged from the hospital still exhibiting the phenomenon. Very rarely also the condition may apparently persist for months or even years.[27]

5. *The character of the urine.*—It might reasonably be expected that when the typhoid bacilli occur in the urine this excretion would be altered in some definite and uniform manner and that thereby our attention would be drawn to this dangerous condition. Unfortunately this is not the case—apart, that is to say, from that occasional general turbidity referred to above which, if not due to phosphates, should always lead to a microscopic, and

[26] Johns Hopkins Hospital Reports, 1895.

[27] Houston: Brit. Med. Journ., January, 1899

if necessary to a bacteriological, examination. Thus in Richardson's nine positive cases: (*a*) eight showed "a faint trace or a trace of albumin," one only from a "thick cloud up to one-eighth albumin," but, as he himself shows, of his 29 negative cases 15 contained albumin and on an average more than was found in those cases which contained bacilli. So also as regards the presence of casts. Again, (*b*) in two of my cases, while very numerous bacilli were present, the urine was clear and contained no albumin. So also in one of Petruchsky's cases. Sometimes, also, (*c*) pus has been present in the urine with the bacilli (Blumer, two cases; so also in the case recorded in this paper).

It is evident therefore that the urine presents no constant characteristics in these cases. Most frequently it would seem to contain a trace of albumin, but it may contain a good deal; it may contain pus. Sometimes also it may be absolutely natural.

6. *The clinical course of these cases.*—It will be instructive to inquire whether the typhoid cases in which the bacilli are found in the urine run a more severe course than those in which this phenomenon does not occur. Richardson is of opinion that such is the case; and certainly of the 15 cases mentioned above five died (a mortality of 33 per cent.), while of the 45 in which typhoid bacilli were not present in the urine only two died (or 4·4 per cent.). It is very questionable, however, whether these figures accurately represent the state of the case. Certain it is that in the five cases in which the urine was "turbid" from the millions of bacilli present recovery took place in each. Moreover, in four of them the phenomenon occurred during convalescence, and throughout its whole duration the patients seem to have suffered from no bad symptom whatever. This certainly was the case in the patient whom I had the opportunity of watching myself. During the occurrence of the bacilluria he was rapidly getting well and complained of absolutely nothing. It would seem, therefore, that the prognosis in a given case should be unaffected by the occurrence of the bacilli in the urine.

7. *On what does the condition depend?*—Unfortunately at present no definite answer can be given to this question owing to the lack as yet of post-mortem examinations in suitable cases. On the whole it would seem most probable that the condition is due to local changes set up in the kidney by the growth there of the typhoid bacillus, an occasional microbe having been carried thither by the blood-stream. It is, without doubt, *not* due to a mere filtration of typhoid bacilli out of the blood. The matter, however, requires further investigation.

General conclusions.—The conclusions, then, which we are justified in arriving at with regard to the infectious character of the urine in typhoid fever are as follows: 1. It can no longer be doubted that typhoid bacilli occur in the urine of typhoid patients, probably in about 25 per cent. of all cases. 2. For the most part, though present in such numbers as to be demonstrated bacteriologically with the greatest ease, they are not present in sufficient quantity to alter the naked-eye appearance of the urine. In a smaller proportion of cases, however—probably about 5 per cent. of all typhoid cases—the urine is rendered turbid by their presence. They are nearly always in pure culture. 3. They occur first late in the disease, rarely if ever before the third week, and may make their first appearance during convalescence. 4. They generally remain present for some considerable time, for some weeks or even months. 5. The character of the urine does not assist in diagnosing the condition (unless of course it be rendered turbid by the bacilli). It may contain no albumin, often contains but a trace, sometimes has a good deal, and sometimes has pus, all of which conditions occur quite apart from the presence of typhoid bacilli in the urine. 6. The prognosis of a case is not rendered more grave by the occurrence of this condition.

Finally, it may be well to contrast the infectious character of the fæces with that possessed by the urine, for in many points the two are dissimilar. In the first place, it must be noticed that whereas the fæces contain the typhoid bacilli in apparently every case this does not obtain with the urine. Probably, indeed, in not more than 25 per cent. of all typhoid cases does the urine present this phenomenon. Secondly, typhoid stools are without doubt most dangerous early in the disease—within the first three weeks. The typhoid urine, however, only becomes dangerous towards the end. Thirdly, typhoid stools may contain considerable quantities of typhoid bacilli, but very rarely, if ever, do they contain such myriads as may be present in the urine.

In conclusion, we may ask which excretion must be regarded as the most dangerous and chiefly responsible for spreading the disease. It would seem on the whole that the palm must be given to the urine and this partly on account of the enormous numbers of bacilli which may occur in it and partly on account of the nature of the excretion itself. Thus, the stools by their colour and odour at once attract attention, so that the slightest soiling of the linen is at once noticed and the damage rectified, but the same cannot be said of the urine. A minute drop from a suitable case may contain some 6000 bacilli—adhering to the end of the penis or to the vulva after micturition, it would infect the linen and could not but escape detection. It is probable, indeed, that in such cases we have the explanation of the fact that even after all precautions have been taken those attending on typhoid patients not so very rarely catch the disease. It would seem, in fact, at the present moment that this occurrence must be sometimes unavoidable.[28] Indeed, when we come to think of the matter it is really astonishing, considering the opportunities of infection which undoubtedly exist, that these cases do not occur more often. It is a strong argument in support of the view that some other conditions must pre-exist, possibly in connexion with the bacterial flora of the alimentary canal, without which typhoid fever will not occur even should the typhoid bacillus be introduced.

It may be well as a last word to repeat again the obvious moral which should be drawn from these facts, for as facts they must be regarded. It is that in all cases of typhoid fever "the urine must be regarded as highly infectious and the same precautions should be taken with regard to it both during the disease and also during convalescence as have now for some years past been adopted in the case of the fæces." If it is logical and wise to take precautions with regard to the one it is equally so with regard to the other. In this way only shall we be able to guard against the obvious dangers to which this condition exposes us. Should, moreover, the condition be proved to be present in a given case by bacteriological examination it would probably be wise to try the administration of urotropin, 10 grains being given by the mouth three times a day. Richardson, to whom I am indebted for the knowledge of this drug, found in two cases that the bacilli totally disappeared from the urine for good after 48 hours of such treatment, and quite recently Dr. Gee and Dr. Andrewes have had an exactly similar experience in a case at St. Bartholomew's Hospital. In this case salol (five grains three times a day) was first tried for three days, but with absolutely no effect. At the end of this time the typhoid bacilli were still present in enormous quantities in the urine. The patient was then put on 10 grains of urotropin three times a day, and at the end of 48 hours the urine had become absolutely sterile and remained so.

I am much indebted to Dr. Gee and Dr. Andrewes for their kind permission to mention this case and thus to assist in drawing attention to what promises to be a valuable remedy for this most dangerous condition.

Addendum.—Since the above was written Richardson's full paper on this valuable drug has appeared.[29] Nine cases of typhoid fever, the urine of which contained typhoid bacilli and in which urotropin was used, are there recorded. In eight of them the bacilli disappeared at once and permanently after the administration of the drug for a few days only, while in the ninth case they were eliminated after the drug had been given for rather a longer period. It is difficult therefore to resist his contention, that since it is impossible without a bacteriological examination to tell whether or not a urine contains typhoid bacilli, all typhoid patients should be given small doses of urotropin (10 grains three times a day or even less), commencing with the third week of the disease. It is a treatment, at all events, which, in the interest of those who nurse typhoid cases, assuredly deserves a trial.

Upper Brook-street, W.

[28] Is it not possible also that the urine may have been at fault in the case of the great Caterham outbreak of typhoid fever in 1879, so ably investigated by Sir Richard Thorne Thorne? It has always been a stumbling block how the fæces of one man could contain sufficient bacilli to contaminate the whole water-supply. The theory adopted that the bacilli multiplied in the water is hardly satisfactory. If, however, we assume that the man was one of the severe "turbid-urine" cases which, as we have seen, may contain as many as 172,000,000 typhoid bacilli in each cubic centimetre of urine, everything would be explained.

[29] Journal of Experimental Medicine, 1899, vol. iv., p. 1.

ACUTE INFLAMMATION OF THE AORTA ASSOCIATED WITH PROFOUND MYOCARDIAL DISEASE.

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CASES are recorded from time to time in which, with or without angina, death occurs quite suddenly and in which the necropsy reveals a condition of inflammation at the base of the aorta unusually acute in its character and remarkably localised in its distribution. In these cases the aortic valves may be thickened by chronic inflammation and yet they may nevertheless be quite competent, and neither during life nor after death can aortic regurgitation be demonstrated and brought forward as an explanation of the sudden cardiac failure. The area of the aorta which is so gravely and severely diseased is the one from which the coronary vessels arise, and it is a natural suggestion that the heart wall has suffered in its nutrition either from a narrowing of the lumen of one or both of these arteries, or that the vessels have shared in the same acute process, and their ramifications have become occluded as a result. A reference to the literature upon this subject proves that such may be the case in some instances, but in the two cases which are recorded below I do not think that such an explanation is tenable. In neither of these two cases were the orifices of the coronary vessels certainly diminished in size nor were their walls visibly diseased, and microscopic examination of the heart wall showed that their ramifications were not occluded. In both cases the cardiac wall was examined with especial care and in both the changes found were widespread and severe and of a nature analogous to that found in the aorta. It is difficult to escape from the conviction that there had been a common antecedent cause which had thus injured these two organs which anatomically and physiologically are so closely associated. The changes in the aorta were obtrusive and in the first of the recorded cases those in the heart wall might macroscopically have been easily overlooked, yet in both cases I should suppose the sudden death depended far more upon these less obtrusive signs in the heart than they did upon the striking changes in the vessel wall. The question of the etiology of this condition is one of great difficulty and it will perhaps be the most rational course to record the two cases with the necropsies and microscopy before allusion is made to their causation. I am indebted to Dr. Cheadle for the first case, under whose care the patient had been while in St. Mary's Hospital.

CASE 1.—A married woman, aged 38 years, was admitted to St. Mary's Hospital under the care of Dr. Cheadle on Feb. 8th, 1899, suffering from pain in the region of the heart and vomiting. Two months before Christmas she had first noticed occasional attacks of præcordial pain extending down the left arm which she said became blue and useless. These attacks, infrequent at first, had during the last week become frequent and severe and were accompanied by vomiting and faintness. Except for a severe attack of "influenza" four years before, from which she completely recovered, her health had been good. She had one healthy child and there had not been any miscarriages. She was said to have been addicted to alcoholism and to have been maltreated by her husband. Her father was still alive, aged 78 years, and her mother died in childbirth. The patient was well nourished and on admission was quite comfortable and free from pain, but shortly after reaching the ward she had a slight attack of pain in the chest and left arm with a feeling of faintness. Dr. Cheadle saw her during this attack and considered it to be one of true angina. The next day she was quite free from pain and she then volunteered the statement that any sudden exertion, even sitting up in bed, was liable to bring on the pain. The temperature was normal. The pulse was of low tension with a small wave, it varied in rate considerably, but was about 72 when the clinical notes were taken. At times it was excited and irregular. The cardiac impulse was in the fifth space internal to the nipple line and the area of dulness was slightly increased to the left. The first sound at the apex was sharp and was preceded occasionally by a short presystolic murmur. The second sound was reduplicated both at the apex and the base. The second sound at the base was sharp and there was no suspicion of a diastolic murmur. The urine was natural, of specific gravity 1025, and there was no evidence of disease in the other organs. The whole of this day and the following were passed in comfort, but at midnight on the 11th a severe anginal attack commenced. The pain radiated over the præcordial region, between the shoulders and down the left arm, and was accompanied by severe vomiting. The face became deathly pale and the extremities cold and clammy. The pulse was rapid and irregular and the first sound reduplicated over the whole præcordial area. The patient was in great distress and complained of vertigo and loss of vision. This condition, in spite of every attempt at relief, continued with remissions and exacerbations until 3 A.M. when the patient died. For the account of the anginal attack and the major part of the clinical notes I am indebted to Dr. Sumner, house physician, and to Dr. Cheadle.

The necropsy was made 32 hours after death. The pericardium was natural and the heart itself was slightly dilated. The cavities were empty and the large veins were gorged with blood. There was a white patch upon the right ventricle and the cardiac muscle was pale and pink in colour. The aortic valves were distinctly thickened but quite competent. The pulmonary valves were natural. The mitral valve was affected by a chronic valvulitis which had slightly narrowed the orifice. The posterior flap had been most affected and the chordæ tendineæ in one part were so shortened that at this spot the valve was tethered on to the papillary muscle. In the substance of the valve there was a calcareous nodule. The tricuspid orifice and valve were natural. Neither ventricle was hypertrophied. The left auricle was slightly thickened. The commencement of the aorta for the first two inches was extensively diseased and this condition extended in irregular patches along the arch. The intima of the vessel in this situation was raised from the general surface and was pinkish red in colour, where the disease was most acute. Some of these raised patches had a translucent appearance; others were yellow with a red flush around their bases. A few patches resembled the ordinary condition of atheroma. The appearance was that of an acute aortitis supervening upon a more chronic inflammation. The large vessels springing from the aorta were not affected. The orifice of the right coronary artery appeared narrower than usual, but it admitted a large probe easily, and the walls of both vessels were macroscopically healthy. The other large arteries were not diseased. There were peritoneal adhesions the result of a previous inflammation between the left lobe of the liver and the spleen; and in the midst of these adhesions there was a calcareous nodule of the size of a large marble. Except for this peritonitis there was no evidence in the other viscera of lesions which might have been explained by syphilis. The bones were only examined by palpation, but no results of a localised chronic inflammation were detected in any of them. The kidneys macroscopically and microscopically were healthy.

Microscopy of the aorta and cardiac muscle.—The sections of the aorta were made from tissue fixed in corrosive sublimate and embedded in paraffin. The intima was swollen and the vessels were distended. Around the vessels there was a free exudation of cells and the fibrous tissues were swollen. In places the cell exudate reached the surface of the intima. The elastic coat was also freely infiltrated with leucocytes which extended to some depth into its substance. Where the aorta merged into the heart-wall itself the exudation could be traced beneath the endocardium of the left ventricle.

The cardiac wall.—Both the left and the right ventricle were examined, the former in three different places and the latter in two. Some of the material was fixed in sublimate and some in Hermann's fluid. All the sections were cut in paraffin. Extensive changes were found in both ventricles which, speaking generally, consisted of scattered foci of advanced disease surrounded by areas comparatively unaffected. The morbid changes are considered under the following headings: (1) the nuclear changes; (2) the changes in the muscle protoplasm; (3) the changes in the interstitial tissues; and (4) the changes in the vessels.

1. *Changes in the nuclei.*—The nuclei stained with carbolthionin took the dye but feebly as compared with the muscle protoplasm, which was coloured a deep blue, whereas in

healthy muscle the nuclei stain a deep violet and the protoplasm a faint blue. This condition I have noticed in other cases of sudden death—for example, in a case of gastric ulcer in a young woman in which the necropsy disclosed no definite explanation, in a case of dilated heart of obscure origin, and in a case of acute septicæmia. Sections fixed in Hermann's fluid and specially stained with nuclear stains showed the nuclei to be in many fibres almost colourless, and if a decolourising method was used they rapidly lost the stain instead of retaining it tenaciously. This condition was most obvious in the neighbourhood and within the foci of marked disease. Stained with methyl green the nuclei also showed this feeble staining reaction.

2. *The muscle protoplasm* had in many places completely lost striation; in other parts this was still evident. In addition there was marked longitudinal striation, a fraying of the ends of the muscles, and in some places frequent transverse fracture. Where the disease was advanced many dark granules were obvious around the nuclei and in some fibres this change was so extensive that only a shell of muscle fibre and a faint nucleus could be seen. In other parts the muscle had a homogeneous hyaline appearance. The osmic acid preparations showed fatty changes in some fibres and in those which were most diseased this was extensive. If treated with very dilute acid the yellow granules and black fat globules were apparent in the same fibre.

3. *The interstitial tissue* showed some increase, but this was not striking. Where disease was most advanced the increase in the interstitial elements was more apparent than real, being due to the complete destruction of the muscular fibres, leaving the connective tissue framework more than usually apparent. In some places there was a cellular infiltration between the muscle fibres and an appearance of active reaction.

4. The large vessels showed in some of the sections a considerable increase in the thickness of the outer coat, but there was not an endarteritis. No occluded vessels were detected in a number of sections which were examined especially for them. The capillaries in some of the diseased areas were distended with blood and were much more obvious than usual. The disease was irregularly distributed in all parts of the ventricle with no particular relation to the pericardium though some of the foci reached the surface. No organisms were detected in the aorta or the cardiac wall.

CASE 2.—A man, aged 63 years, was brought to St. Mary's Hospital on Nov. 10th, 1898. No account could be obtained of his previous health or habits. The circumstances of his death were the following. He was sitting at a table in a shop at 2.30 P.M. shortly after dinner when while speaking to his fellow-workmen he suddenly got up from the table and fell to the ground. He was then found to be unconscious and lay in this condition, breathing heavily for 10 minutes. He was placed in a cab but died before reaching the hospital.

The post-mortem examination was made 24 hours after death. Rigor mortis was present; there was much abdominal and a considerable amount of epicardial fat. The heart weighed 18 ounces. Both ventricles were dilated and the left was slightly hypertrophied. The endocardium in the left ventricle was opaque and thickened. The aortic valve was competent and the segments were distinctly thickened. The mitral flaps were thickened; the other valves were natural. The cardiac muscle, especially in the interventricular septum and toward the apex of the left ventricle, was obviously fibrosed. The commencement of the aorta showed an extensive inflammation of the inner coat. It was red and showed also raised translucent patches and yellow areas, the latter older in date and less acute in their origin than the former. The orifices of the coronary arteries were natural in size and there was no visible disease in their walls. The kidneys microscopically showed some fibrosis and the vessels were distended with blood. There were no evidences of visceral syphilis in the other organs.

Microscopy of the aorta.—The intima was increased in thickness and the vessels were distended. There was extensive cellular exudation, both reaching the inner surface of the vessel and extending into the elastic coat.

The cardiac muscle was extensively diseased in scattered areas. Some of the fibres showed striation, but many had lost all vestige and there was some fatty change and many granules around the nuclei of these fibres. The interstitial changes were very extreme in some parts of the interventricular septum. The muscle had almost completely disappeared and the outer coats of the vessels were thickened. The smaller vessels in places were distended and there was exudation of leucocytes, pointing to an active process.

There is a striking similarity between these two cases and one which would in all probability have been even greater had any previous history of the second case been obtainable. Both died rapidly but not abruptly and in both acute changes were found at the commencement of the aorta, with marked focal changes in the cardiac walls, and these latter in the absence of definite disease of the coronary vessels. In neither case was the pericardium affected. In both there was some thickening of the mitral and aortic valves, but in neither were the aortic valves incompetent. In the man the heart was considerably enlarged, but it must be borne in mind that he was 63 years of age and that his kidneys showed some cirrhosis. That the etiology of such cases as these is obscure can be readily understood when there is so little that is definite to be gathered from their history. The condition of the heart and aorta goes far to explain the symptoms but helps but little to explain the causation.

The microscopic evidences of dilated vessels, exudation of leucocytes, and increase of fibrous tissues point to a reaction to some morbid process, and the activity of it is manifested in the destruction of the muscular fibres and altered condition of the intima of the artery. Morbid processes of many different kinds may, however, produce a like reaction to that presented in these cases and the remarkable feature lies not so much in this as in the peculiar distribution of the disease. In the case of the woman I examined all the larger arteries with especial care and saw no trace of a condition similar to that found in the aorta. The literature upon the subject is to some extent unsatisfactory, for the condition of aortitis is in many instances considered apart from that of myocarditis and *vice versâ*. In some cases the changes in the cardiac wall are undoubtedly due to disease of the coronary vessels, while of a case recorded by Dr. G. W. Balfour (an illustration of which forms a frontispiece to his "Clinical Lectures on Diseases of the Heart and Aorta") it is stated that the heart was almost healthy, though there were some narrowing of the coronaries and interference with the circulation. French authors have written with great care and minuteness upon the subject of aortitis, both clinically and experimentally, and it is well recognised that such a condition may occur as *secondary* to an acute infection, as in typhoid fever, variola, or influenza, or may apparently be *primary*. In these two cases it is not, I think, a question of a primary or secondary aortitis which has to be considered but a joint affection of the heart and artery dependent upon some common cause. A combination such as this was observed by Landouzy and Scredery in hæmorrhagic small-pox and typhoid fever, though the inflammation was more acute and in the arteries far more extensive. In infective endocarditis the aorta and cardiac wall may be both extensively diseased. Boinet and Romany have produced aortitis in animals by injecting diphtheria toxins under the skin and Mollet and Regaud and other observers have produced myocardial disease by the same methods. There is then evidence of this combination occurring as a result of infections, the disease in the heart and arteries not being dependent the one upon the other but both attributes of the particular infection.

In these cases there was not any evidence of an acute infection and the appearance of the vessels pointed to a condition of acute disease supervening upon a more chronic process, which would appear to be the rule in the case of acute *primary* aortitis. One would therefore naturally turn for the explanation to some chronic toxæmia in which there are exacerbations of intensity, and syphilis is perhaps the most readily brought to mind. This disease is known to affect the arteries, but especially the smaller ones, and also the myocardium. In 1856 Sir (then Dr.) Samuel Wilks described extensive fibroid changes in the heart as a result of syphilis, and in 1897 Dr. Sidney Phillips[1] published an important paper upon the same subject. Unfortunately, there is no account of the aorta except incidentally, the paper dealing solely with the changes in the heart itself. In the case of the woman recorded in this article the chronic inflammation between the left lobe of the liver and spleen with the calcareous nodule enclosed therein is very suggestive of such a cause, but further evidence there was none. The condition of the cardiac wall in both cases would be compatible with syphilitic disease, but, as already stated, in the absence of a definite gummatous change it

[1] Syphilitic Disease of the Heart Wall, THE LANCET, Jan. 23rd, 1897.

seems unwise to dogmatise. Alcoholism is another possibility, for there was a fairly definite history of the habit in the first case, and the appearances at the necropsy in the second were quite compatible with such a theory. The effect of this poison upon the cardiac muscle is known to be very profound and its influence in producing inflammation in the larger vessels is also undoubted.

The immense importance of the clinical aspect of these cases is evident and the diagnosis and prognosis of the greatest practical interest. In this article the pathological aspect has been especially dwelt upon, for the other aspects are dealt with as fully as it is possible by various writers upon diseases of the heart, Dr. G. A. Gibson,[2] in his work upon the heart, for example, devoting considerable attention to those points which bear upon diagnosis and symptomatology. The first case exemplifies the difficulty and doubt which surround their recognition. It is the pathological association of disease in the aorta and heart muscle itself apart from gross affection of the coronaries to which I have here called especial attention, for it is a point which has not been as clearly stated in the writings upon this subject as I think it deserves.

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A CASE OF EPITHELIOMA OF THE TONGUE: SURVIVAL FOR OVER 23 YEARS AFTER REMOVAL OF THE GROWTH.

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AT the present time when attempts are made to prove that cases of malignant disease which survive an operation for three years may be regarded as "cures" I wish to put on record a remarkable case of survival in perfect health for over 23 years. I extract the following report of the case from the Transactions of the Pathological Society of 1876.

"*Epithelioma of the tongue involving the lower jaw; removal.*—A man, aged 52 years, was admitted into University College Hospital under Mr. Heath's care in September, 1875, with very extensive cancerous disease of the tongue and sublingual structures. In January, 1874, was noticed a swelling of one of the submaxillary glands and soon after a sore beneath the tongue. The sore healed and the gland subsided under treatment. In September, 1874, the gland began to swell and at last broke. At the same time he found that he had difficulty in articulating as the tongue was fixed to the floor of the mouth and eventually the tip of the tongue became fixed to the jaw. This was temporarily relieved in April, 1875, by an operation undertaken in a London hospital. On admission the patient was unable to protrude his tongue or move it in his mouth. The saliva constantly trickled away and articulation was very imperfect. He complained of great pain in the occipital region but of none in the tongue. The gums of the incisor region were swollen and ulcerated and the teeth were loose. The tongue was fixed to the back of the jaw which was softened. All the tissues beneath the jaw were indurated, but the skin was not involved. On Sept. 29th, 1875, Mr. Heath removed the tongue, the centre of the jaw, and all the sublingual tissues by dividing the skin in the middle line, then sawing the jaw through on each side, and, having isolated the tongue somewhat on each side, by enclosing the whole of the disease with the wire of the galvanic écraseur. The patient made a good recovery and was shown to the society on Nov. 2nd. The parts removed consisted of the middle three inches of the lower jaw, nearly the whole of the tongue, and the sublingual muscles and glands *en masse*. At the posterior end the mass measured two and a half inches in depth and slightly more from side to side. The tongue appeared to be healthy except at the anterior part; and on the left side, just behind the tip, was a nodule of the size of a pea. Beneath the tongue was a mass of yellowish-white firm tissue with a granular surface which was continued quite up to the cut margin. This tissue on microscopical examination proved to be epithelioma.

Examined microscopically, the gums and the tissues at the root of the tongue, even to the edge of the part, are found to be epitheliomatous. Characteristic 'globes' are only very small and few in number, but collections of large epithelial cells of varied shapes, with clear distinct nuclei, are very abundant and characteristic. The growth is infiltrating the muscles at the root of the tongue, but the tongue itself except at the tip is free."

The patient completely lost the occipital pain of which he complained and which I have noticed in other cases of cancer of the tongue but cannot explain. The two halves of the jaw gradually fell together and firmly united, as I have seen in more than one similar case, and the stump of the tongue grew considerably. Articulation and mastication were very fair and the patient presented himself periodically before my class until two years ago when, getting too old to work, he went into the country where he died in January, 1899.

In the Transactions of the Pathological Society for 1898 Mr. Littlewood records a case of sarcoma of the tongue and refers to one which I reported in the same Transactions in 1869. The case was then recorded as one of "medullary cancer of the tongue," but an elaborate report upon it by the Committee on Morbid Growths is given which shows it to have been really a sarcoma—a growth at that date not differentiated. The specimen consisted of the anterior half of the tongue, which had been removed with the écraseur after section of the lower jaw for a mass involving the organ and the floor of the mouth. The patient was 60 years of age and the disease had existed six months, and on looking into his mouth there was between the tongue and the lower jaw on the left side a ragged ulcerated surface occupying the floor of the mouth. The operation was performed in September, 1869, and the patient lived till 1884, when he died from senile decay, aged 78 years.

Cavendish-square, W.

[2] Diseases of the Heart and Aorta, 1898.

ON THE TREATMENT OF INSANITY BY VARIOUS ANIMAL EXTRACTS.[1]

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I WISH to call attention in this paper to some brief records of cases of different forms of insanity treated by various glandular extracts. The extracts used were ovarian, cerebrinin, didymin, and thyroid—all in the form of tabloids, each containing five grains. In every case the usual precautions to be followed before beginning a course of gland-feeding were taken—viz., apparently sound bodily condition on careful physical examination of the patient and rest in bed for a few days before and after as well as during treatment, except in one case where the dose was small and continued for a longer period than usual. During the time when the patients were confined to bed their diet consisted chiefly of milk, beef-tea, light puddings, &c. The dose given at the outset was 15 grains and it was increased daily by 15 grains until 60 grains had been given. The treatment was usually continued for five, six, or seven days, but longer if thought advisable.

The cases chosen for ovarian feeding were those in which there was complete amenorrhœa, the most successful results being obtained in the insanity of adolescence. Female epileptics were treated by cerebrinin, male epileptics by didymin, while thyroid was administered in cases of melancholia, acute mania, and dementia. Five patients were subjected to ovarian extract treatment, the use of this tabloid being suggested to me under circumstances which are explained in Case 1.

CASE 1.—The patient, who was admitted to the Warwick County Lunatic Asylum in November, 1897, suffering from mania, was a fairly nourished girl, aged 19 years, and was stated to have had a previous attack which was treated at home. She was delusional, inclined to be violent, very restless, and occasionally faulty in her habits. About a month after admission she became more demented, wandered about in an aimless manner, smiled fatuously when addressed, and grew very dirty and depraved in her habits. This demented

[1] A paper read before the Northern and Midland Branch of the Medico-Psychological Association on April 12th, 1899.

condition continued for the next four months. She had never menstruated regularly and for some time before and since her admission she had suffered from complete amenorrhœa. It was noticed that at certain periods (occurring about every four weeks) she became worse mentally, being more than usually dirty and depraved in her habits. At the request of her relatives she was examined, under an anæsthetic, by a well-known gynæcologist who could find no mechanical obstruction to her menstruation. With a view to bringing about this function (and without in any way attempting to treat her mental condition) he suggested that she should be given ovarian tabloids. This was done, the patient taking five grains of ovarian extract three times a day. She was not confined to bed and the treatment was continued for some weeks, during which time she showed marked signs of mental improvement, becoming much cleaner in her habits, more tidy in her appearance, taking more interest in her surroundings, and answering simple questions in a more rational manner. She also began to occupy herself in sewing and in household duties. About a month after this treatment was commenced she menstruated slightly. Her relatives were very anxious to have her at home and at the end of June, 1898, she was sent out on trial and some months later was finally discharged as relieved. A few weeks ago I received a letter from her sister, who says: "I am glad to say my sister is in very good health, both mentally and bodily. Her periods have been regular. I feel now that I can trust her to go about alone. She travelled from London to Birmingham some time back by herself. She has taken up her music again and rides her cycle."

CASE 2.—The patient was a young woman, 18 years of age. On admission she was acutely maniacal, gesticulating, jumping about, and crying out that she was a lion. She was given a mixture containing bromide of potassium, tincture of valerian, compound tincture of cardamoms, &c., without much apparent benefit. She continued in this excited condition for about three weeks, becoming wet and dirty in her habits and requiring constant attention. She then began to gain flesh and became more demented, though still subject to attacks of hysterical excitement. Six months after her admission she was put to bed and treatment by ovarian extract was tried. She had suffered from complete amenorrhœa since her admission and for some time previously. The physical reaction was marked. On the first day her temperature in the evening rose to 101° F., although her pulse did not show an increased rate corresponding to the elevation of temperature as might have been expected. She was subjected to this treatment for six days, her temperature being normal or subnormal after the first day. The commencing dose was 15 grains, increasing by 15 grains daily until she was taking 60 grains. 13 days after this treatment was concluded she began to menstruate and her recovery was then very rapid. She is now quite well mentally and physically.

CASE 3.—The patient, a young woman, 20 years of age, was on admission the subject of acute melancholia. Her mother had committed suicide 16 years before. She was very low spirited and depressed, seldom speaking, and answering in monosyllables when addressed, and she appeared to take little interest in her surroundings. A few weeks after her admission she became more demented, wandered about in an aimless manner, refused her food, and required spoon feeding. At this time she could not be induced to speak at all and did not seem to comprehend what was said to her. She also became faulty in her habits. She continued in this demented condition for the next two months. As she had not menstruated since her admission she was then kept in bed and ovarian extract feeding was tried. This was continued for seven days, the previously described doses being given. There was a marked physical reaction, chiefly affecting the pulse, her highest temperature being 99° F. on the evening of the fourth day, whilst her pulse-rate rose from 84 to 116 per minute. The patient was very restless while undergoing treatment, difficulty being experienced in keeping her in bed. She gained one pound in weight. She soon began to show signs of improvement, occupying herself in household duties and answering simple questions rationally. A month later she could converse but was very shy and reserved. She then began to work regularly at the laundry. Menstruation has now been established and she continues steadily to improve mentally so that I have good hopes of her ultimate recovery.

CASE 4.—The patient, a married woman, aged 33 years, when admitted was suffering from acute melancholia with strong suicidal tendencies. She had had four previous attacks, the first occurring at the age of 21 years, when she attempted to commit suicide by taking poison. She was the mother of three children, the youngest being four years old. For the past eight months she had only menstruated once very slightly, this occurring about two months before her admission and after a long course of treatment at a hospital for the diseases of women. She continued very emotional, low spirited, and depressed for some weeks, when ovarian extract treatment was tried with the usual dose and method of administration. The physical reaction in this case was not marked, the patient's temperature being normal and her pulse varying little from its usual rate. The treatment was again successful in producing menstruation at the patient's next period, and also in effecting a very marked mental improvement. She is now bright and cheerful and in excellent mental and bodily health. She states that during a previous attack she suffered from amenorrhœa and made a quick recovery when her menses returned.

CASE 5.—The last of this series of cases is that of a married woman, 43 years of age. On admission she was the subject of acute melancholia with suicidal tendencies. She was very low spirited and depressed, saying that she wished to get better but knew she never would, that the time seemed so long, that she wished she was dead, and that she could feel that her mind was going. During the next two months she grew gradually worse and required constant supervision. When admitted she was menstruating but had not done so since. She, having noticed the recovery of the patient whose case was last given (Case 4), with whom she was on very friendly terms, requested that she might undergo the same treatment. This wish was complied with. The physical reaction was not marked. Up to the present time she shows no mental improvement and the menstrual function has not yet been re-established.

I think the histories of these few cases which I have been able to place before you are sufficiently encouraging to warrant perseverance with the treatment, particularly in the insanity of adolescence, and I hope at some future time to record the results of a more extensive trial of this extract.

I regret to say that in the cases of female epileptics treated by cerebrinin tabloids the results were by no means so satisfactory. The treatment and dosage were the same as those followed when using ovarian extract. In the first patient to whom these tabloids were administered the physical reaction was not marked, but there was some digestive disturbance. The treatment was continued for 15 days, during which time she became more excited and had marked hallucinations of hearing. Taking a corresponding period before and after the treatment there was a slight increase in the number of fits. Three more cases similarly treated proved no more successful. In the fourth case the patient had a greatly increased number of fits, subsequently becoming acutely maniacal; she had been resident in the asylum for eight years and had always been quiet, orderly, and well-behaved. After these unwished-for results I abandoned the administration of this particular extract.

No better results were obtained from the treatment of male epileptics by extract of didymin. This tabloid was administered in 10 cases with the following effects. Five of the patients had a fewer number of fits during the month after treatment as compared with the preceding month, but taking the total number of epileptic seizures of the 10 patients under treatment the figures become 100 to 99. Eight patients gained in weight, which was probably due to the rest in bed and the extra diet, the physical reaction not being marked, the temperature reaching 100° F. in only one case. The mental disturbance was very evident in nearly all these cases. One patient, the subject of epileptic dementia, who had not spoken for some years and who had lived more or less in a state of hebetude, became quite garrulous and observant for several weeks. Others grew excited, quarrelsome, and pugnacious, and laboured under hallucinations of sight and hearing to a greater extent than before treatment. Cerebrinin and didymin extracts are, I believe, advertised as being on trial for the treatment of epilepsy, but my observation of their effects, though very limited, would not encourage me to continue their use in this disease.

Of thyroid extract I have had little experience. In the few cases, however, in which it was administered my results coincide with those obtained by many who have tried this treatment. One patient, the subject of acute melancholia, showed a distinct improvement for some little time after treatment,

but she never thoroughly recovered and has now completely relapsed. A like disappointing result was met with in a case of acute mania. The other cases treated did not show even a temporary improvement.

Hatton.

AFTER-PROGRESS AND TREATMENT OF TWO CASES OF GASTRO-ENTEROSTOMY.

BY RICHARD BEVAN, L.R.C.P. LOND., M.R.C.S. ENG., D.P.H.

IN THE LANCET of Sept. 26th, 1896, under the heading of "A Plea for Early Operation in Dilated Stomach due to Pyloric or Duodenal Obstruction" I gave the history of two cases of dilated stomach and the ultimate benefits derived from the operation of anterior gastro-enterostomy. One case was that of a probably cicatrised duodenal ulcer; the other a non-malignant pyloric tumour. In the first a Murphy's button was used; in the other direct suture. In the course of my paper, with a view to accentuate the necessity of the more early resort to operative interference, I described the sufferings and drawbacks consequent on the postponement of operative measures; and I suggested that this temporising or prolongation of medical in substitution of surgical treatment might be due either to an exaggerated view of the seriousness of an abdominal operation, or to not sufficiently grasping the serious nature of the destructive agencies at work on the organ and its glands by delay, or to anxiety to take advantage of the slightest fancied improvement (often quite temporary) obtained by lavage, dieting, anti-fermentatives, and medicines, or perhaps to an unwillingness to assume the responsibility of recommending such an operation in cases where there are difficulties in the accurate diagnosis of the cause of the dilatation where there is no lump, or to recommend it at all where the presence of a lump at the pylorus makes the result unpromising. Since my paper was written the fallacy of these arguments has been demonstrated by the wonderful success which has attended abdominal operations generally in the hands of competent surgeons and, amongst others, operations on the stomach itself—gastro-enterostomy most of all. Again, purely malignant cases seen and recognised early and operated on quickly have not suffered half the drawbacks of the non-malignant cases which were under prolonged observation and allowed to drift into the exhausted, poisoned, wasted, half-dead state before operation which is so prejudicial to the patient and operator. And, lastly, it has been proved that many lumps apparently malignant have by the recovery of the patient proved to be innocent and thus have been suitable cases for operation. A reader of the medical journals of to-day will perceive that the hesitation of former days has changed since 1896 and perhaps in some degree gone to the other extreme, the operation being performed by Tuffier of Paris for the sake of the rest it gives to simple ulcer of the stomach; yet it must be acknowledged that the operation has had a successful career in the hands of many surgeons and its earlier adoption has lessened the risks incident to the operation, given the patient a better start on the road to recovery, and lessened his drawbacks in the years to come. I pointed out in my paper that the evil results of this delay were destruction or atrophy of the digestive glands of the stomach, enormous over-distension and dilatation of the stomach walls, thickening of portions of the coats by fibroid induration or degeneration of the submucous coats leading to weakened contractile power, inability to expel the contents of the stomach, stagnation of food and consequential formation of a fermenting residuum with the evolution of disgusting gases, distress, discomfort, loss of sleep, and vomiting. I finally pointed out that the operation gave almost immediate relief to the more urgent symptoms of obstruction, but that the other conditions would take years to overcome and remedy.

It is now three and a half and three and a quarter years since the operations. I have therefore thought that it might be of interest to describe the progress of these cases and the means adopted during the interval to combat and alleviate the various symptoms, hoping that the hints may be of service to other practitioners in dealing with similar cases. In both of my patients the operation performed was anterior gastro-enterostomy. Owing, however, to certain drawbacks attendant on this operation I regretted for a month at least that the posterior operation was not chosen. However, I suppose each has its advantages and disadvantages—for instance, in the anterior operation with a Murphy's button the whole time consumed is about from 20 to 25 minutes, which is an important detail to a patient reduced to a skeleton and with no surplus strength; there is, again, less manipulation and the operation is easier to perform. There is this disadvantage, however, that when the patient is in bed after the operation and lying on his back there is a tendency for the bile to flow into the stomach, for it will be seen that the aperture of junction is situated in what in this position is the floor of the channel along which it flows. This, most operators have found, disturbs digestion, fills out the stomach with irritating fluid, resulting unless removed by syphonage in vomiting. This annoyance continues for months after the operation in a greater or less degree and of itself compels resource to the syphon tube. It has been suggested that the bile does not flow through the operation hole but back through the disused pylorus. I think this the most unlikely explanation, for the pylorus is always on the watch against reflux of food or liquid, and in the circumstances under consideration there are lessened calibre and spasmodic contraction in addition to deal with. Then, again, with the anterior operation the food while the patient is recumbent has to be expelled through a trap door in the roof of the cavity with the upper wall of the gut acting as a valve-flap. It is argued that this fact does not interfere with the free expulsion of the food from the stomach owing to the free contractions of the walls of the cavity, but it certainly did in one of my cases, for in the dilated condition of the stomach this very necessary contractile power is absent and the walls are acting at a mechanical disadvantage. I therefore advised my patient never, if possible, to have a meal when about to retire and never to lie down immediately after a meal, the upright position and some movement helping, in my opinion, to allow of a more ready discharge of the food through the aperture. Again, I used to advise my patient when in bed to help the natural expulsive efforts by turning over on to the right side almost on to his abdomen, thus allowing the gut to become the most dependent part. I advised, too, his kneading and gently rubbing the stomach in the direction of the aperture into the bowel. How far these manœuvres were successful and how far contractile power was returning to the wall of the stomach could only be tested by the condition of the morning wash-out to which I will allude later.

Returning to the merits and demerits of the posterior operation it will be plain that in the recumbent position it allows of the speedy emptying or draining of the stomach contents into the bowel (its remaining in the stomach we know from the effect of recent operations being quite unnecessary to fulfilling the requirements of the nutrition of the body), and consequently the stomach has more rest and there is less chance of the stagnation of the food; in fact, theoretically it is the more preferable operation, but I apprehend that the drawbacks are mainly "operative"—that is, that it takes about two hours to complete, and that the operator is pretty well limited to a gastro-duodenostomy instead of a gastro-jejunostomy. Making a hole in the transverse mesocolon, which is highly vascular, increases the risk, besides which, dragging a portion of jejunum through it would tend to open up the risk of kinking and subsequent dangerous obstruction. This gastro-duodenostomy, then, although theoretically the more perfect operation, has the disadvantages of being lengthy and difficult, in themselves serious drawbacks, and it might not always be convenient to choose a bit of intestine so close to the stomach in certain cases, and so the anterior operation is the one most likely to be chosen by operators notwithstanding any disparagements which may be made to its adoption.

Much misconception seems to exist in different cases as to the extent of the dilatation which there is both before and after operation—at least, such was the case in more than one of my cases. For instance, one case was seen by three eminent consultants and pronounced slight in extent owing to having been seen early in the morning after a very slight meal, when I am sure that at certain times of the day the greater curvature almost reached the symphysis pubis. This in certain cases may have a disastrous influence on an opinion as to the future treatment or on the recommendation for

operation and can only be remedied by the increased attention paid in recent years to the more accurate measurement of the extent of the affection by the employment of exploratory laparotomy, of Ebstein's gas test, or the introduction of Turck's instruments or Rosenfeld's loaded tube for inflation. Accurate appreciation of the extent is, however, of supreme importance to the further well-being of the patient.

Another symptom which I have not seen touched upon very much in the descriptions of this disease and which might mislead was well marked in one of my patients and that was attacks of what the late Sir William Roberts called "gastric cramp or paroxysmal pyrosis." This consisted of, first, a slight feeling of nausea succeeded by profuse salivation, like the aura in epilepsy, followed by violent peristaltic crampy pains in the stomach as if it was contracting forcibly and pushing something hard and indigestible over a sensitive spot or through a contracted aperture. Actual vomiting in my experience never or hardly ever occurred. The saliva may be swallowed or flows from the mouth and the body is doubled up with pain and a sense of great relief follows the attack. In my patient I thought that pieces of unmasticated meat, or fruit, or vegetables, or currants were being pushed through the pylorus or over a sensitive ulcer in the duodenum. It generally occurred two or three hours after meals and most relief was afforded by bending the body and firm pressure. These attacks occurred both before and after operation and though considered by Sir William Roberts to be due to a hyper-acid condition of the stomach contents might be mistaken for gall-stone colic or for the pains of malignant disease and thus be misleading.

Just as the syphon tube played such an important part in the health—I might even say existence—of my patients before operation and immediately after, so, too, it has continued to be used in both my cases up to about a year ago. I cannot lay too much stress on the large part that this played in the after-history of these cases, both in the immediate relief which it gave to sudden discomfort and in the assistance which it gave by systematic use towards permanent convalescence by removing irritative material and keeping the stomach comparatively empty and so preventing the formation of the gases which are such considerable factors in the act of dilatation. I know that an idea is prevalent that the use of the syphon tube is unnecessary and weakening, but instead of that I am perfectly satisfied that in one of my cases at least, if not in both, the patient was rapidly going to the bad, although he had been operated upon, till the tube was systematically employed, when he gained seven and a half pounds in weight in a fortnight. I cannot, however, be too emphatic as to the time, the kind of syphon, and other details which I found useful in my cases, and this experience may be of service to others. I recommend a tube of large calibre, of the softest possible rubber, German or French, but unobtainable in England. It cannot possibly be too soft, as anyone who has had any personal experience can vouch for. There should be a good-sized hole at the side of the tube about an inch or so from the end, together with a hole at the end itself. The majority of tubes are hard, not of sufficient calibre, and have such a small aperture that it is quite impossible to syphon off the solid particles which often remain undigested amidst the remains of a meal. The hole gets blocked with these and the tube has to be withdrawn and cleared, often causing much distress and disturbance to the patient by re-introduction. The tube should be divided in the centre if this has not been already done by the makers and a glass junction of about two inches in length should be inserted so as to allow a view of the effluent. The upper end of the tube should be enlarged so as to admit the rounded end of a fairly large (say, a pint) glass funnel. The small rubber funnels into which most of the tubes which I have seen are expanded are a nuisance as it is impossible to gauge the amount of liquid poured into the stomach at each insertion unless previously measured in a jug, and this ceremony each time is annoying and wearisome to the patient who does his own washing out. I believe it is a mistake to insert too much liquid—that is, to over-distend the stomach—each time as recommended by some authorities, but I recommend about a pint of solution to be poured in at a time, the contents of the stomach having previously been syphoned off, the sides of the interior to be reached and washed by splashing the solution round the walls by alternate forcible and quick contraction and relaxation of the walls of the abdomen while the solution is in the stomach, and this manœuvre is to be repeated until the effluent is clear. I believe, too, that it is a mistake to make the solution too hot. I am in the habit of recommending, when the patient is stronger, a final douche of cold water or cold solution and thus to give it a final fillip. After the warm solution it acts like the cold sponge after a tepid bath, the stomach walls contract firmly and all fluid is forcibly expelled from the cavity. I have usually used vaseline as a lubricant for the tube, but glycerine or simple water acts very well. I do not think one can commence too early to teach a patient to pass the syphon tube for himself. After a few lessons he will become the most expert and careful operator and, looking on it as his best friend, take his washing out as part of his toilet and think less of its discomfort in comparison with the relief it affords him. I must in honesty confess that with some patients, especially in the early period before regaining much flesh or strength, the act of lavage caused a certain amount of shock, or, as one expressed it, "took it out of him," causing a feeling of weakness and coldness notwithstanding the feeling of relief and comfort about the stomach. This was not experienced later with returning strength and appetite, but I am in the habit of recommending that lavage should be done in a warm room, that the patient should lie down afterwards if necessary, and I always give some stimulant, food, or meal as soon afterwards as possible to neutralise this condition. The best times for lavage appeared to me to be the early morning on getting up, and again about 6 or 6.30 in the evening, for the following reason. During the night the stomach gradually empties itself of the last meal of the previous day; this, owing partly to the recumbent position, is done very gradually and consequently there is usually at first some fermentation at night and a residuum to be found in the morning. It is essential that this residuum, which contains active fermentative agents, should not be allowed to remain to inoculate the morning meal. The amount of this morning residuum and the condition of the wash-out is a very fair guide as to the improving condition of the stomach. When there is no residuum and the morning wash-out is quite clear for any considerable time continuously then it can be left off and a morning draught of hot water, with or without additions, to which I will allude later, can be substituted; but it is wonderful how long this wash-out has to be continued—years in one instance—especially when delay in the adoption of the operation led to much dilatation and lack of contractile power and indigestion. So far from being harmful, as I see it is suggested to be by one authority on stomach troubles, the experience of my patients leads me to believe that it conduces to an appetite and relish for food, lessens gastric catarrh, and abolishes to a certain degree the disgusting fermentation and eructations which are an unceasing annoyance to a patient with dilatation. The stomach commences its day's work with a comparatively clean bill of health. Now, as to the time of the second washing out. I think that 6 or 6.30 P.M. is about the best time. Some authorities, I know, have recommended it should take place the last thing at night as giving the patient an empty stomach and therefore most opportunity for sleep during the night: but if it is remembered that the patient is a person whose system is impoverished and whose banking account as far as strength goes is overdrawn it will be plain that he wants to retain what food he takes as long as is possible and yet not introduce fermentative germs into the next meal. Washing out at 6.30 P.M. will give the patient five and a half hours after lunch to absorb what he can out of that, and he will probably enjoy his dinner at 7 o'clock. If, on the other hand, he delays washing out till 10.30 or 11 P.M. he will, with his impaired digestion at that hour, hardly have got any benefit from his last meal and that meal will have been inoculated from the residuum of his lunch and he will have to wash out the combined meals just when delayed digestion has begun to make it useful for absorption. I think, therefore, after a considerable experience, that the patient derives most benefit out of his food and a fair amount of rest in addition by my plan.

With regard to the solutions of drugs to be used in lavage I have tried borax, boric acid, salicylate of soda, sulphocarbolate of soda, sulphite of soda, hypo-sulphite of soda, and latterly simple boiled water. Where there was active fermentation by sarcinæ and horrible eructations of sulphuretted hydrogen gas very dilute solutions of hypo-sulphite of soda appeared very efficacious; when, however, there was much gastric catarrh superadded to the trouble,

with secretion of ropy mucus, I recommended a weak carbonate of soda solution and I believe that it had a good effect.

It may appear to be a small matter, but I am bound to lay stress upon the necessity of thoroughly cleaning the tube inside and outside on each occasion of use. It should be thoroughly washed, some disinfectant solution should be passed through it, and it should be allowed to lie for a time in some Condy's or Sanitas solution after use, for I am certain that I have seen re-inoculation of sarcinæ at the next introduction into the stomach by the neglect of this precaution.

Next with regard to the value of the various antiseptics, or rather anti-fermentatives, which are recommended in all stages of this complaint, I must confess that my experience of their use has been most disappointing. I found that to have any anti-fermentative action they had to be taken in such doses as almost to become irritants and that unless taken almost before fermentation set in they were practically useless and even then they delayed or inhibited digestion. I found that once decided fermentation had set in in a meal nothing short of washing out gave relief; if allowed to remain, scalding, eructations, and eventually gastric catarrh and vomiting resulted. I found, therefore, that it was essential in my endeavour to assist digestion to prevent catarrh, and that in order to do this an attack of fermentation had to be nipped in the bud. Sometimes patients were apt to take liberties and to indulge in things which proved to be indigestible, with resulting fermentation and discomfort; then no antiseptic was of use and lavage was imperative. This had to take place occasionally at irregular times, such as in the night. On the other hand, I have known times when a patient has dined out, not too wisely either, fully prepared to put up with the consequences, and yet to his surprise has been none the worse for it. Among the antiseptics in more frequent use I have tried creasote in pill, capsule, and palatinoid, carbolic acid, soda sulpho-carbolate, charcoal, sodic sulphite, soda salicylate, and salicylic acid. This last in five-grain doses in cachets appeared to be the only one upon which any reliance could be placed.

With regard to diet the meals should be moderate in amount and comparatively dry, with the avoidance of anything which might form a suitable cultivation soil for germs. One patient tried the drinking of hot water half an hour before meals but its effects appeared disastrous as very little of it was absorbed by the time the meal was taken. Liquids should be taken at the end of the meal and be limited in quantity and some hot water should be taken at bedtime to replenish the system. Milk and farinaceous puddings I found to be a ready source of fermentation, and strong tea as a drink and afternoon tea as a meal undesirable. The following dietary answered very well. Breakfast at 8.30 A.M., to consist of fish, eggs, or tongue, toast or stale bread, butter, and some very weak China tea. Lunch at 1 o'clock, to consist of either fish, fowl, sweetbread, brains, or calf's head, bread or toast, biscuits and butter, a tablespoonful of whisky or brandy with six ounces of plain water at the end of the meal, and no vegetables. Dinner at 7 or 7.30 P.M., to consist of either stewed chop or stewed pigeon, steamed fish, poached eggs, and possibly a little milky rice pudding, biscuits and butter, brandy or whisky and water as at lunch, no vegetables, and no fruit. Occasionally a glass or two of madeira might be substituted for the whisky. At bedtime a tumbler of boiling water was to be sipped. Shortly after the operation my patient found great benefit from an ounce of raw meat-juice at 11 A.M. and another at 4 P.M. Wyeth's or Valentine's extract might be substituted, but personally I favour the home-made article, for the manufacture of which I found an old tincture press far and away the most convenient article. Later, when my patient is improving, digestion is increasing, and washing out is being gradually omitted, I substitute a tumbler of boiling water at 7.30 A.M. containing either 15 grains of salicylate of soda or one drachm of sulphate of soda. Then the dietary can be enlarged so as to allow for breakfast some toasted bacon or a poached egg or some cold boiled bacon, fish (boiled or steamed), and omelette or scrambled eggs; at 11 A.M. a glass of port wine; at 1 P.M. lunch of practically the same food as above or increased by the addition of lamb, boiled or roast mutton, game, boiled rice, baked apples, stewed rhubarb, and possibly potato purée and spinach which has been passed through a sieve. Dinner as above, with the addition of blanc-mange or rice, with fruit jellies, red currant or apple, &c., to taste. In the afternoon later a little milk and a biscuit or madeira cake may be substituted for the meat-juice, but tea (afternoon tea) delays digestion and cannot be recommended. At 11 P.M. the patient should take his boiling water. Vegetables are in some forms indigestible and in others conduce to fermentation; salads, oranges, grapes and apples, and most fruits are distinctly bad; so also are milk in any quantity, sugar, and farina either alone or in combination—all conducing to active fermentation. Experience enabled one of my patients to explode a popular fallacy—viz., that cold meat was indigestible; in fact, he came to quite the opposite conclusion, whether it was that it was drier or why I do not know. Hashes and minces except of fresh meat were abominations. Gravies, sauces, pickles, curries, and stews are inadmissible.

I found that digestion in this, as in other diseases of the stomach, was much influenced by exhausting work and anxiety; in fact, so much did defective innervation cause delayed digestion and all its troublesome sequels that two years ago after a period of great overwork a consultant whom one of my patients saw thought that the aperture was contracting but recommended before an exploratory operation his trying a change to Switzerland. The bracing air and change acted like a charm—the gastric secretions and movements necessary for healthy digestion were restored and the patient returned to work with renewed vigour. My patients did not try many drugs; they were nitro-muriatic acid, hydrochloric acid, phosphates, nux vomica and strychnine, bismuth, alkalies, and cascara. I think they derived most benefit from a pill containing at first a quarter of a grain of extract of nux vomica three times a day and increased later to half a grain. To combat the constipation I tried a soap-and-water enema every morning, then I substituted the soda sulphate in the hot water in the morning and later still relied on cascara. This has to be continued even now. I always provided an emergency draught containing soda sulpho-carbolate, aromatic spirit of ammonia, tincture of nux vomica, and peppermint water for relieving the distress at night caused to the patient by the upward distension of the stomach against the diaphragm and heart. Sitting up in bed, friction of the stomach, and a dose of this mixture in most cases quickly gave relief. With regard to artificial digestives, such as pepsin (liquid and solid), papain, and lactopepsin, they appeared utterly useless. One patient, however, expressed some belief in Kepler's extract of malt.

To sum up the results of the operation, I think that without exaggeration it may be said that in each case the life of a patient has been saved who at this period of time could not possibly have been living without it; since then with improved nutrition the circulation has improved, fainting and toxæmia have disappeared, the earthy complexions have improved, and sound sleep has returned. The Murphy's button has not been passed, but no discomfort has been experienced. With regard to the present condition of the two patients after three and a half and three and a quarter years both are well and at work. In Case 2 the weight is normal and in Case 1 it is about a stone under the normal. Digestion has continued to improve in both although in Case 1 (the more severe case) a little care has still to be exercised in the articles of diet, but with the other anything that comes to table does not disagree. The lump, which was most probably inflammatory thickening, has disappeared. In Case 1 the stomach is still dilated and splashing can be obtained, but both symptoms are improving. The thirst, which perhaps was one of the most distressing symptoms of all, has disappeared with the increasing improvement in the digestive functions of the stomach. By the way, this did not appear to depend upon a desire for liquid but upon irritation of the mucous membrane of the stomach and to be reflex in character; although the throat was dry and parched, it was the dryness produced by a hot pipe or cigarette. Finally, I cannot better conclude than by quoting a letter which I received from one of my patients—viz.: "I am happy to say that to all intents and purposes I am quite well; up to my usual weight, 10 st. 7 lb., and am working up to my usual form and can eat anything I come across in reason. To-day is the anniversary of my operation. I am really almost overwhelmed when I think of the wonderful change wrought in my health with my deep debt of gratitude to my God who so mercifully has aided the skill of the surgeon and practically made a new man of me again." May I express the hope that, aided by improved means of diagnosis,

by the help of confidence obtained by increased experience and by the reports of successful cases operators may go on year after year giving cause for more patients to re-echo the sentiments of the one quoted above.

West Kensington, W.

INFECTION OF TUBERCLE FROM SONG-BIRDS A FERTILE THOUGH UNSUSPECTED SOURCE OF PHTHISIS.

BY A. TUCKER WISE, M.D. BRUX., M.R.C.S. ENG., L.R.C.P. LOND., DIPLÔME SUISSE FÉDERAL.

WHILST engaged on an inquiry into the sources of bacillary infection in cases which have recently come under my notice I have been struck by the number of patients who have lived in contact with diseased canaries and other feathered pets. Among cage-birds, pigeons, and poultry tuberculosis is a common disease and there is a strong probability that avian infection can be conveyed to human beings who keep birds within the house. The objectionable practice of allowing them to place their beaks in contact with the lips is a risky and dangerous proceeding as regards liability to receive bacilli in this way if the bird is not healthy. Flies can also convey filth and with it disease germs from the cage to human food, or the dust of dried excrement and mucus may pollute the air of any room in which birds are kept. Feeding and nursing sick birds and blowing the dust and husks from their seed and cleaning the cage are not without danger. In my opinion the canary or any other bird kept in the kitchen is a positive peril to the household, as by fluttering and whisking the dust from its cage or mucus from its beak the food of a whole family can be contaminated.

Parrots also can be attacked by tubercle, which is characterised frequently by new growths of horny skin which sometimes attain a considerable size. They can be easily broken off and they contain numerous tubercle bacilli in their basal granulation tissue. Tuberculosis of the lungs and conjunctiva is often met with. According to a compilation by Eberlein the skin was affected in 52 per cent., the tongue in 16 per cent., and the bones and articulations in 12 per cent. of all the cases. From a diagnostic point of view it is important to note that the tuberculosis of parrots is distinguished by the presence of an enormous number of bacilli.[1] Psittacosis, an infectious disease of parrots, has already been observed to cause a serious and fatal pneumonia of a special type transmitted from these birds to man. In 1892 about 50 persons in Paris were attacked; since that time other milder epidemics have been noticed and studied by Gilbert, Fournier, and Débove. At the same time Nocard was fortunate enough to isolate a short, thick bacillus with rounded ends and he gave a description of it before the Conseil d'Hygiène in 1893. Cadiot[2] contributed a paper on tuberculosis of the smaller animals and pointed out that dogs and cats were much more liable to tubercle than was generally supposed. Tuberculous dogs spread infection by nasal discharge, by excrement, by urine, and by lesions of the skin; cats equally in the same manner. One of the cats examined had a large ulcerated wound of the nose. Cadiot also noticed external tuberculous lesions as being frequent among parrots.

Taking into consideration the unnatural and unhealthy life to which man subjects the domestic animals, especially birds confined in small cages, it is not surprising that these captives should become diseased and pollute the air with pathogenic micro-organisms. In a work on diseases of cage-birds Dr. W. T. Greene mentions phthisis as a form of tuberculosis attacking the lungs which is not usually met with in birds except as a sequel to the occurrence of the disease in other parts of the body, notably the liver and spleen; however, as a secondary affection it is not uncommon amongst canaries. He names the symptoms as gradual emaciation, sometimes a husky cough, inability to moult, and lastly diarrhœa, and adds that canaries are the most frequent victims, but that fowls, pheasants, and pigeons also suffer from the disease. Bechstein defines a disease of cage-birds called the "pip" as a catarrh or cold by which the nostrils are stopped up and the membrane covering the tongue is hardened by inflammation. No bacteriological observations have yet been made on this catarrhal disease so far as I know, nor can anyone say whether it is contagious or the reverse. There are also forms of tuberculous tendency in cage-birds termed "rickets" and "scrofula." In mentioning the latter Dr. Greene says that it is strongly hereditary, and knowing this the amateur for his own sake should avoid breeding from a tainted stock, which may endure for years, it is true, but will always be unhealthy and unsightly. Gilbert, Roger, and Cadiot have been able to produce tuberculosis in rabbits by inoculating them with the avian bacillus. We must therefore admit that avian tuberculosis may occasionally be transmitted to mammals.[3] Much incipient unnoticed disease exists amongst domestic animals and bacillary affections enter largely into the mortality of cage-birds. From a clinical inquiry I find some remarkable coincidences of pulmonary tuberculosis developing in families who have kept birds in the house, and I am of opinion that a number of healthy, sound individuals contract the disease from this origin. An instance of suspected infection arising from poultry where the diseased fowls were consumed as food is given by Dr. Peter Paterson in THE LANCET of Oct. 30th, 1897. In this case, although the diseased fowls had no access to the dwelling-house, Dr. Paterson considered that the infection of the family with tuberculous disease (the wife dying ultimately from intestinal and the daughter from pulmonary tuberculosis) was derived either indirectly by inhaling or swallowing the germs as they were blown about in the poultry-house, or more directly by eating the carcasses of the birds which may have been insufficiently cooked. From my own personal investigations, already referred to, I will now relate the following examples of infection from canaries and other small cage-birds occurring amongst some of my patients and in their households.

CASE 1.—This case occurred in a large, well-built house situated in one of the health-resorts. The family health was good. There was no hereditary tendency to tuberculosis either in the parents or grandparents. About from 20 to 30 small birds, chiefly canaries, were kept for many years in rooms over the stables, distant about 50 feet from the house. Many of these birds were brought into the house from time to time and cages were always hanging in the dining-room and hall. In the kitchen a cage hung over the table on which were placed the pastry, cakes, jellies, ices, &c., for meals. In 1887 a domestic servant, aged 23 years, always delicate, developed cough with hæmoptysis. In 1889 a domestic servant, aged 22 years, became ill with cough and expectoration. In 1890 a domestic servant, aged 24 years, developed cough with hæmoptysis. In 1890 a daughter in the family, aged 30 years, well developed and enjoying good health, whose weight was 9 st. 7 lb., and who was fond of out-door exercise, was taken ill with hæmoptysis. Caseation of the apex of the left lung supervened and a cavity formed which had now cicatrised (1899). In 1892 a son in the family, aged 21 years, always healthy, whose weight was 11 st. and whose height was 5 ft. 10 in., was taken ill with hæmoptysis and loss of flesh accompanied with signs of consolidation at the apex of the right lung. After two winters' treatment in the Alps no physical signs of disease remained. In 1893 a son in the family, aged 27 years, athletic, strongly built, and healthy, was taken with hæmoptysis, cough, and loss of flesh. Rapid and extensive tuberculous infiltration of the lungs supervened and he died in 1895. This patient kept birds in his bedroom. In 1893 a domestic servant, aged 25 years, was taken ill with cough and expectoration followed by hæmoptysis. In 1896 a daughter in the family, aged 35 years, had hæmoptysis and caseation of the apex of the left lung with formation of cavity. She is still under treatment.

CASE 2.—This case occurred in a house situated in a large town. The patient, a man, aged 41 years, who had always been in good health and with no family history of tubercle, suddenly broke down with cough, expectoration, and loss of flesh. He regained a loss of 20 lb. in weight during one winter in the Alps. A cavity which formed in the right apex cicatrised after three years' treatment and the patient now

[1] Friedberger and Fröhner's Veterinary Pathology. Translated by M. H. Hayes, F.R.C.V.S., 1898.

[2] Académie de Médecine, November, 1896.

[3] Brit. Med. Jour., March 5th, 1898.

enjoys good health. He kept a canary which died before he broke down in health.

CASE 3.—This patient was a medical man, aged 31 years, practising in a health-resort. He was a well-built, athletic man and had always been in the enjoyment of good health. There was no family history of tubercle. Illness commenced with hæmoptysis during influenza. There was dulness at the apex of one lung with a few fine crepitations and expectoration containing half-a-dozen tubercle bacilli in a field. There was loss of weight to the extent of 21 lb. This patient recovered completely after one winter in the Alps. He weighs now 13 st. His height is 5 ft. 9 in. He writes: "We had two birds and strange to say they both died about the time of my illness."

CASE 4.—The patient was a dental surgeon, aged 43 years. There was no family history of tubercle. He was well nourished and was in good health up to two years ago. His weight then was 13 st. and his height was 5 ft. 11 in. After a small hæmoptysis cough and expectoration supervened with bacilli in the sputum. Canaries were kept in the house but none died, nor did any of the birds appear to be diseased. This patient is still under treatment.

CASE 5.—The patient was a woman, aged 20 years. She lived in a healthy part of Queensland, Australia. She was taken ill with cough, feverishness, expectoration, and emaciation. Râles were detected throughout both lungs, but very few bacilli were observed. There was no family history of tubercle either in the parents or grandparents. From 15 to 20 canaries were kept in an aviary on the balcony of the house; several of these birds died from time to time. A brother had died from phthisis, aged 25 years. Another brother, aged 23 years, and a sister, aged 20 years, had died from phthisis. The patient named above died after one year's illness. All these persons had been in contact with the birds for some years.

CASE 6.—A family living in a healthy situation in Silesia kept a large number of birds in an aviary fitted with artificial trees, water, &c., in the conservatory. There was no hereditary taint of tubercle with the grandparents who died at advanced ages—viz.: the maternal grandmother, aged 89 years, from heart disease; the maternal grandfather, aged 70 years, from gout; the paternal grandmother, aged 75 years, and the paternal grandfather, aged 75 or 80 years, from disease not known, but it was not lung disease. The family inhabiting the house died as follows: the mother, aged 61 years, from pulmonary consumption of three years' duration; the father, aged 57 years, from pulmonary consumption of six months' duration. Nine sons and daughters also died from phthisis at the following ages: 12 years, 14 years, 16 years, 17 years, 19 years, 24 years, 30 years, 36 years, and 37 years. Two daughters remain alive, aged about 50 and 60 years; both are affected with pulmonary tubercle in the quiescent condition.

CASE 7.—The patient was a youth, aged 18 years. He had had hæmoptysis yearly since 12 years of age. A cavity had formed in the right apex. Several canaries were kept in the house previously to the first hæmoptysis. During the holidays he would have the birds in his bedroom. They were considered to be "unlucky" in bird-keeping as so many died.

CASE 8.—The patient was a woman aged 33 years. Illness commenced with cough, expectoration, and loss of flesh about two years ago. There was now excavation at the apex of the right lung. There was no family history of tubercle and the patient occupied a spacious house in a healthy situation in London. She frequently visited a house where canaries were kept in the bedroom, dining-room, hall, and kitchen. The smell of the cages often made her feel sick. There were two members in the family she visited—husband and wife—but no children. The husband mentioned developed pulmonary disease at the age of 40 or 45 years, although he was considered a strong man and had been an athlete at Oxford.

CASE 9.—A woman, aged 22 years, was taken ill in June, 1892, with a cough. Hæmoptysis occurred in 1893. There was no loss of flesh, feverishness, or shortness of breath. A winter spent in Egypt did not prove beneficial. She preferred cold climates. A cavity formed in the right apex without much constitutional disturbance. A linnet and a canary were kept in the house before her illness; she frequently kissed the birds, both of which died from a wasting disease with loss of feathers.

CASE 10.—The patient was a woman, aged 41 years. She had suffered from a slight cough for two or three years. In 1896 the cough became troublesome and feverish symptoms supervened. She lost a little weight in the summer, but regained the loss during the cool weather of the autumn. There was scattered tuberculous mischief in the upper portions of both lungs, but with patience and care the disease has become comparatively quiescent. A canary was kept in the dressing-room for four or five years. The bird died.

As there is generally a high mortality amongst cage-birds, especially if several are kept together, and tuberculosis being very frequent with them, the birds which become affected can doubtless spread bacilli during the course of the disease. It appears therefore inevitable that any person inhaling the contaminated dust of the house runs a decided risk of becoming infected by a respiratory impurity of a virulent nature. On the other hand, tuberculous dust can be deposited on the food of a household, especially on milk, butter, cheese, bread, jellies, pastry, and all cold viands, and in this way convey the avian bacillus to the stomach and intestines. Perhaps the relation of the foregoing cases in which over 30 persons became attacked by tubercle may tend to elicit further information from other observers on the important question of tuberculous infection from avian sources. There have been cases already observed where the avian race have themselves become infected from human sources—e.g., in the case of poultry picking up tuberculous expectoration or eating food previously masticated by tuberculous human beings. It is stated that parrots have taken the disease in this manner and also by the bird inhaling the bacilli of human sputum along with dust deposited in dwelling-rooms, mentioned by Friedberger and Fröhner, Hayes, and others. This does not, however, affect the question of the avian race being capable of re-transmitting the infection in their turn if kept in a diseased condition in contact with human beings. Although doubts have been expressed regarding the identity of avian tuberculosis with that of mammals, Friedberger and Fröhner mention that the more recent investigations of Cadiot, Gilbert, Roger, Fischl, Courmont, and others tend to show that these two forms of tuberculosis are produced by the same species of bacilli, although by different varieties, the differences between them having been produced by differences in their respective modes of nutrition. The number of song birds kept in captivity, especially canaries, must be very large. It is stated by a recent writer in *Good Words*, under the *nom de plume* of "Nightingale," that at a moderate estimate 400,000 canaries are sold every year in Great Britain.

Montreux, Switzerland.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON HERNIA OF THE VERMIFORM APPENDIX.

BY W. MCADAM ECCLES, M.S. LOND., F.R.C.S. ENG.,

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IN THE LANCET of May 6th, 1899, two very interesting instances of the vermiform appendix being the sole occupant of a femoral hernial sac are recorded—one having been under the care of Mr. Edmund Owen and the other under the care of Mr. W. H. Battle. One of the most interesting points raised by these cases is the question whether true strangulation of an appendix in a hernial sac ever occurs. By strangulation I would imply the sudden descent of the viscus through a hernial aperture and the immediate nipping of its tissues by the edges of the ring, so that there results an obstruction to the proper return of blood from its vessels. That such may occasionally happen may be true and that it may be in evidence without signs of intestinal obstruction is obvious, for the lumen of the cæcal appendage is not in the direct line of the onward flow of the intestinal contents. But I venture to think that in a large majority of cases where untoward symptoms occur when an appendix is herniated, these are due to inflammatory processes precisely

similar to those which may affect the appendix while still within the abdominal cavity. It is well known that the symptoms of appendicitis may supervene with surprising rapidity, and this fact applied to inflammation within a hernial sac would perhaps lead to the belief that sudden strangulation had occurred. In many cases where an appendix has been found in a hernial sac, apart from other viscera, adhesions have been noted, showing evidence of past inflammatory action even if this has been but slight. Again, concretions and foreign bodies within the appendix have been recorded when this organ has been found outside the abdomen. No doubt when inflammation is in evidence the appendix becomes greatly thickened and its tissues will thereby be considerably pressed upon by the fibrous structures around the neck of the sac, but this is a secondary effect and should not be designated primary strangulation. The appendix has been found alone in the sac of a right inguinal, a right femoral and a *left* inguinal hernia, but I do not know of any instance where it has descended into and remained the only occupant of a left femoral, an umbilical, or a ventral hernia. It has been discovered at all ages, and out of 29 cases which I collected in 1896[1] it lay in the sac of an inguinal hernia in 16 cases and in that of a femoral hernia in 13 instances.

Harley-street, W.

NOTE ON THE COUNTING OF THE WHITE BLOOD CORPUSCLES.

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IN the counting of the blood corpuscles it is advisable, as has been pointed out by Sherrington,[2] to use a single preparation for the enumeration of both the red and the white corpuscles. The blood must be diluted with some suitable fluid at least 50 times, otherwise the red corpuscles are so closely crowded that no trustworthy count can be made. In blood thus diluted the white corpuscles, if not in excess of the normal, are few and far between; over the whole area of 400 squares that are ruled on the floor of the cell in the Thoma-Zeiss hæmocytometer not more than from 12 to 20 white corpuscles are to be seen in the case of normal blood; the number is so small as to afford a quite inadequate basis for the calculation of the total number of white corpuscles in the cubic millimetre of blood. The object of this note is to indicate a simple means of increasing the area available for the purpose of the count. It is by the use of the camera lucida. The most convenient form is the Zeiss-Abbe drawing camera, which is used with the stage of the microscope in a horizontal position—an important matter in dealing with fluid preparations; the image of the field is projected on to a piece of paper or cardboard lying horizontally on the table immediately to the right of the microscope stand. Before making the blood-count the ruled squares on the floor of the hæmocytometer cell are brought into focus and with the aid of the drawing camera the outline of as many squares as appear in the field is accurately marked out on the cardboard. At the time of making the count the image of the corpuscles which lie on the unruled part of the cell floor is thrown by means of the camera on to the cardboard, and the corpuscles which appear to lie over each square are enumerated and included in the count. In practice it is convenient to use a mechanical stage, and with the help of this it is possible to map out with great accuracy as much of the floor of the cell as is occupied by the drop of diluted blood and to enumerate the white corpuscles lying thereon. In this way the number of white corpuscles which are brought under notice for the purpose of the count is multiplied many times. It is, of course, essential that the eye-piece, objective, and tube-length used during the count should be the same as on the occasion of marking out the squares on the cardboard. For the dilution of the blood I know of no better fluid than that recommended by Sherrington,[3] consisting of: distilled water, 300·0 cubic centimetres; sodium chloride, 1·2 grammes neutral potassium oxalate, 1·2 grammes; and methylene blue, 0·1 gramme. In this solution the shape and colour of the red corpuscles are preserved. The red corpuscles are not stained. The nuclei of the white corpuscles are in every instance stained and the distinction of the white from the red corpuscles is thus facilitated. For the differential count of the white corpuscles it is desirable to work with an immersion lens and as the depth of the hæmocytometer cell renders this impossible it is necessary to prepare a special fluid film. The subject of the differential count was discussed in a paper, to which I would refer, recently read by me at a meeting of the Royal Medical and Chirurgical Society.[4]

Weymouth-street, W.

[1] St. Bartholomew's Hospital Reports, 1896, vol. xxxii., p. 93–105.
[2] Proceedings of the Royal Society, vol. lv.
[3] Loc cit.

NOTE ON A CASE OF SYPHILIS WITH NO PRIMARY SORE.

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CASES of syphilis in which a primary sore is absent are well recognised by continental authorities, but most English surgeons, I believe, are still sceptical on the point. The following case which was under observation from the first is therefore worth recording.

On March 21st a man, aged about 25 years, was sent to me by Dr. Steegmann with a view to the diagnosis of syphilis. He had a roseola rash on the chest, abdomen, and flanks, but no other signs and no primary sore. In January (two months before) he had contracted gonorrhœa and feared that he had also got syphilis owing to some inflamed smegma glands exciting his suspicion. From that date up to the present time he was under the observation of Dr. Steegmann and myself, and at no time did any "primary sore" develop. Later, in March, a typical polymorphous secondary syphilide appeared followed by injection of the fauces and mucous patches on the prepuce. There can, I think, be no doubt that this was a case of syphilitic infection without a primary sore.

Writing on syphilis in 1897 Stassano[5] was of opinion that many cases of syphilis occur without a primary chancre and that a solution of continuity is not necessary for its formation, as shown by the occurrence of chancres on the tonsils, where such solutions of continuity could hardly occur. Stassano even goes so far as to consider "primary chancres" as part of the "secondary" eruption because of the absence of any sign at the situation of the chancre during the period of incubation. Mr. Hutchinson, who has been kind enough to give me his present views on this subject, says: "I have seen not a few cases of constitutional syphilis in which, although carefully observed, no chancre had been noticed."

Finsbury-square, E.C.

[4] The Clinical Examination of the Hæmic Leucocytes, delivered on April 25th, 1899.
[5] La France Médicale, August 6th and 13th, 1897.

THE HEALTH OF GLOUCESTER.—The report of the medical officer of health (Dr. Campbell) for 1898 to the Gloucester Urban Sanitary Authority has just been issued. Dr. Campbell estimates the total population of the city at 41,450, an increase of 284 in the year. The births numbered 1315—688 males and 627 females—compared with 1336 in the previous year. The rate is 31·7 per 1000 compared with 32·6 per 1000. There were 694 deaths, as compared with 726—a rate of 16·7, as compared with 17·6 in the previous year. This is regarded as an extremely gratifying fact, as it places the city on a par with the most healthy towns in the kingdom. Dealing with the water-supply, the report states that the three sources of supply now available are capable of providing 20 gallons per head per day for double the population now supplied. On the whole, the supply generally will, it is stated, compare favourably with that of the best supplied towns, and the only fault that can be found is that the Witcombe and Robinshood Hill supplies are not sand-filtered as well as decanted and that the Newent supply is not chemically softened.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

TWO CASES OF FILARIASIS, ONE EXHIBITING SO-CALLED VARICOSE GROIN GLANDS AND THE OTHER CHYLOUS HYDROCELE AND LYMPHATIC VARIX OF THE SPERMATIC CORDS.

(Under the care of Mr. FREDERIC EVE and Mr. J. MCCARTHY, with pathological notes by Mr. H. L. BARNARD.)

THE very important observations made by Mr. Barnard in the former of the following two cases throw much light on some obscure points in the life history of the filaria. The fact, however, that in this case the enlargement of the inguinal glands was not due to the dilation resulting from lymphatic obstruction elsewhere does not make it impossible or even improbable that this may be the cause in other cases.

CASE 1. *Enlarged and cystic groin glands on each side ("Demerara groin") due to filaria sanguinis hominis.*—A negro seaman, aged 24 years, was admitted from the receiving-room of the London Hospital for tumours in both groins. The patient was a native of Demerara, his father being white and his mother black. Some 12 years ago he fell from a tree among some broken bottles and incised his right groin; soon afterwards the swellings appeared and had slowly and steadily increased. The present appearance of the scar in the right groin would rather lead one to suppose that it originated in a suppurating bubo. The tumours in the groins caused the patient no pain, only inconvenience, and their size was diminished by the recumbent position. On examination it was found that the left tumour was as large as two fists and extended from the anterior superior spine of the ilium to the spine of the pubes, and from Poupart's ligament above to the apex of Scarpa's triangle below. It was flattened (shaped like a bun), was lobulated, and had a pillowy feel like a lipoma. The skin was freely moveable over it and the tumour moved readily on the deep fascia except at the saphenous opening where it was attached. The tumour in the right groin was similar in character but was limited to Scarpa's triangle. The blood was examined at night and the presence of the filarial embryos was demonstrated. They began to appear about 10 P.M. and were most active and abundant at 2 A.M. It was decided to perform an operation and ether having been administered an oblique incision was made by Mr. Eve over the tumour in the left groin. On cutting into it chylous fluid escaped. The entire mass was then dissected out and the lymphatic vessels and veins entering the mass were ligatured. All stages of involvement and spongy hypertrophy of the lymph glands were found, from those glands which were not affected at all to those in which the glands had become as large as walnuts, and were composed of a tough, sponge-like reticulum filled with lymph. The tumour collapsed when cut into. The swelling in the right groin was then treated in a similar manner. To complete the history of this case the wound healed by first intention and no untoward results had occurred when the man left the hospital a month later.

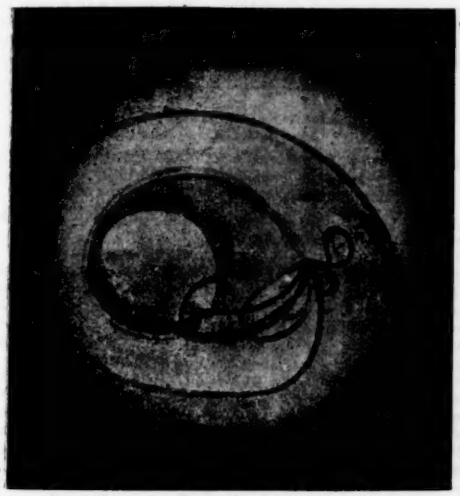
Examination of the excised glands by Mr. BARNARD.—The mass of glands removed was examined two and a half hours after removal by the surgical registrar (Mr. Barnard) for filarial embryos. These were found, but were very languid in their movements. This induced him to raise the whole tumour to blood heat. A parent worm was then seen to be wriggling from the cut surface of the mass. This worm was unfortunately broken off at two-thirds of its length; but another and complete specimen was obtained from a fresh cut surface and this worm was safely mounted in glycerine and water and ringed. (Fig. 1.) After again warming the tumour and closely examining the points of reflected light upon its surface it became obvious that the entire mass was in vermicular movement and it was estimated that at least a dozen parent worms were present in it. It would therefore appear that the hypertrophy of the glands is to be regarded as a result of the direct obstruction and irritation of parent filarial worms living in them and not to lymph congestion due to obstruction of the lymph channels of the abdomen. This observation renders it probable that the distribution of parent worms throughout the body is in some instances much more general than is commonly supposed. If this assumption be correct it explains those cases in which elephantiasis of the leg and lymph-scrotum co-exist and in which elephantiasis of the leg follows the removal of a lymph-scrotum. It also makes it more easy to understand how the union of the sexes takes place. For a male worm to find a single female existing in the body presupposes a degree of instinct and perseverance which is inconceivable. In the Museum of the Royal College of Surgeons of England (No. 4029[1]) is a portion of a lymph-scrotum exhibiting a mature female filarial worm projecting from a dilated lymphatic. It was observed by Dr. Manson immediately after making the incision. There were no filaria in the blood although they existed in lymph from the scrotum and the groin glands were "varicose." Dr. Manson concluded from this circumstance that all the lymph channels were blocked with ova and anticipated finding the parent worm in the scrotum. The parent worm in the present case (see Fig. 1) was about three inches in length and resembled a piece of white thread. The microscope revealed a refractive alimentary canal running the entire length of the worm. On either side of this alimentary canal were placed the two uteri. The ova at the deep ends of the uteri were round cells showing no trace of the embryo worms (see Fig. 2). As the uteri were traced towards their orifices the ova became more and more formed until at the opening itself free embryo worms were seen in them.

CASE 2. *Chylous hydrocele of the left tunica vaginalis and lymphatic varix of both spermatic cords more marked upon the right side.*—This case was admitted to the London Hospital under the care of Mr. McCarthy, and Mr. Eve and Mr. Barnard are indebted to him for permission to publish it with the other case. The patient was a young Scotchman, aged 25 years. He was born in Victoria, Australia, and at the age of 16 years he entered the service of the Eastern Extension Telegraph Company. In the employ of this company he visited Penang, the Straits Settlements, Batavia, Upper Burmah, and the north-west parts of Australia. On several occasions he suffered from malarial fever. Six years before admission while in Singapore his left testis first began to swell and this he attributed to a bicycle accident. Exercise often made it painful. A little later he began to suffer from periodical attacks of pain in the loins followed by "milky urine," but he never saw blood in the urine. These attacks were apparently due to exercise or exposure to cold. He underwent no treatment for these troubles until six months before admission, when he was in Australia, and a medical man informed him that he had a hydrocele and tapped it. A teacupful of "yellow, cloudy fluid, rather thick in consistency," was drawn off. The patient had recently come to England and as his hydrocele had recurred and a soft swelling had appeared on either side of his scrotum he applied at the London Hospital for treatment. On examination it was found that in the left side of the scrotum there was a hydrocele of about the size of a turkey's egg. It fluctuated and was translucent. On the right side above the testicle was a swelling of the size of a bantam's egg which was soft and felt like a varicocele; it emptied on steady pressure and slowly filled again. Upon the left side a similar condition existed in a minor degree. The patient was very sallow and anæmic. Filarial embryos were found in the patient's blood at night. They were absent from the vessels of the skin during the day and began to appear at from 10 to 12 P.M. Mr. McCarthy tapped the hydrocele and drew from it four ounces of chylous fluid. He then injected a drachm of iodine solution. On examining the chylous fluid active filarial embryos were demonstrated. A fortnight later Mr. Eve (to whom the case had been transferred) dissected out the lymphatic varix in the right spermatic

[1] See Museum Catalogue, vol. xxxii., p. 285.

cord, treating it as though it were a varicocele. It consisted of dilated and hypertrophied lymphatic vessels with thickened walls. These vessels were held together by loose connective tissue. On dividing them a milky fluid escaped which contained the embryos in active movement. For a few days after the operation the scrotum was distended with an effusion of lymph and at one time it was as large as a

FIG. 1.



A parent worm.

foetal head. The removal of a few stitches, however, allowed this fluid with some clot to escape and the swelling rapidly subsided, the wound healing without suppuration. The clots of fluid which escaped on removal of the stitches contained dead embryos. When the patient left the hospital a month later his anæmia and general condition had much improved on a thorough course of treatment with iron and arsenic.

FIG. 2.

Uteri of worm. Highly magnified.

Hypodermic injections of perchloride of mercury were also tried but without any perceptible change in the number of embryos present in the blood. In this case, as in the first, no ill effects followed the operation.

Remarks by Mr. EVE *and* Mr. BARNARD.—By one of those strange coincidences which occur with such astonishing frequency in hospital practice the above cases of filariasis were admitted consecutively into the same bed in the London Hospital. A point of extreme interest about Case 1 was that on removal the tumour was found to contain a large number of the parent worms of filaria Bancrofti, two specimens of which were secured. Judging from this case it would seem that the name "varicose groin glands" is unfortunate, if the word "varicose" is intended to imply that they result from lymph congestion or are a dilated collateral circulation, the result of obstruction to the main lymph channels of the abdomen. We are indebted to the late house surgeon, Dr. Spillane, for his careful observations and notes of these cases.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Infections from Unsound Meat.—Chemical Composition in Relation to Germicidal Action.—Exhibition of Specimens.—Annual Meeting.—Election of Officers.—Report of the Committee on Pseudo-tuberculosis.

A MEETING of this society was held on May 16th, the President, Dr. PAYNE, being in the chair.

Dr. H. E. DURHAM made a communication on Infections from Unsound Meat. He had investigated two outbreaks at Surbiton and Salford and had studied the action of the serum from these patients on cultures of various bacteria. As a general result he found that they gave a definite agglutinating reaction in high dilutions with culture of the bacterium enteritidis. This reaction was given with all varieties of this bacillus although there were individual peculiarities in their behaviour. He also added the serum to cultures of typhoid and other bacilli, but found no reaction unless be used low dilutions of serum. With low dilutions, however, he obtained the agglutinating action. Dr. Durham pointed out that the strength employed (1 in 10) would give agglutinating reaction with serum from many cases besides those of enteric fever and that it could not be regarded as a specific reaction. For purposes of diagnosis of enteric fever the clinical methods of sero-diagnosis ordinarily followed were quite unreliable, a much higher dilution being necessary. In the cases of meat poisoning to which he referred there was no reaction with high dilutions except to cultures of the bacillus enteritidis. Dr. Durham thought that there was no doubt that cases of meat poisoning were due to infection by organisms and the reactions he had obtained showed that in his cases the infection was due to the bacillus enteritidis. In most of the epidemics where the source of the meat could be traced it had been shown by different observers that animals from which the meat came were themselves diseased before death. Lantern slides were shown exhibiting photographs of the clumping reaction in tubes of cultures, and also micro-photographs showing the polymorphism of the bacillus enteritidis.—Dr. WASHBOURN was sorry that Dr. Durham had not gone more fully into the proofs that these cases were always due to an infection and not to absorption. He agreed that in the majority of cases this was so. The old methods of removal of alkaloidal ptomaines from the organs many hours after death were open to many objections, and it was probable that they did not produce the symptoms met with during life. He was interested to hear what Dr. Durham had said as to the unreliability of the serum reaction in enteric fever as usually applied, but he thought that in the wards it gave very accurate and useful information.—Mr. A. G. B. FOULERTON could not agree that all the evidence was in favour of cases of meat-poisoning being infective. The mere presence of the agglutinating reaction did not prove this point, as if a horse were immunised by the inoculation of diphtheria toxins, bacilli being excluded, the blood afterwards gave a good agglutinating reaction with cultures of the diphtheria bacillus. He also quoted Gaertner's and other cases in which after the ingestion of large quantities of unsound meat symptoms appeared within three hours which would not be likely with a bacterial infection. In one outbreak which he had investigated the symptoms came on very soon after taking some ham and the severity of the symptoms were proportionate to the amount of meat which the individuals had taken, which was consistent with poisoning by toxins rather than organisms. Further, there was no

direct evidence that the bacillus enteritidis had ever been found in the blood of patients during life.

Dr. JAMES RITCHIE (Oxford) read a paper on Chemical Composition in Relation to Germicidal Action. In his investigations Dr. Ritchie employed normal solutions of the various chemical substances investigated and an emulsion of the typhoid bacillus in water, uniform diffusion being obtained by filtering off all clumps by a plug of sterilised glass wool. He investigated groups of metallic salts grouped according to Mendeléeff's law and he found that with metallic salts the toxicity varied with the atomic weight of the base, the acid radical not affecting the result. With the halogens, chlorine, bromine, and iodine the same relation to the atomic weight was observed. With groups of organic bodies in each group the members with the higher molecular weight had the greater germicidal action. There were a few exceptions. Lithium did not take the place which it should among the monatomic group, but it presented also notable chemical differences such as the insolubility of the carbonates. Neither the mineral nor the fatty acids conformed to this rule, but in both cases their germicidal action was proportional to their chemical "avidity."

The following card specimens were exhibited:—

Dr. A. E. GARROD: Fibrosis of the Lung.

Dr. W. S. LAZARUS-BARLOW: Syphilitic Stricture of the Bile-Duct.

Dr. H. D. ROLLESTON: Columnar-celled Carcinoma of the Tail of the Pancreas.

Mr. T. LISTER: (1) Tuberculous Gastric Ulcer; (2) Ulcerative Colitis; and (3) Ulcer of the Duodenum in Melæna Neonatorum.

Dr. J. H. DRYSDALE: Tuberculosis of the Inferior Vena Cava.

Dr. H. A. LEDIARD: (1) Pin in the Appendix; and (2) Congenital Fibrous Tumour on the Neck of a Child.

Subsequently the annual general meeting of the society was held, Dr. PAYNE being in the chair. The report of the Council was read and adopted. It announced that an index of the last 13 volumes was being prepared and that the task had been entrusted to Mr. Shattock.

A very cordial vote of thanks was given to Dr. Payne, who has occupied the chair with great success for the last two years, to the retiring honorary secretary (Mr. D'Arcy Power), and to the other retiring officers. The ballot for the election of officers for the season 1899–1900 resulted in the election of the following list:—President: Mr. William Watson Cheyne. Vice-Presidents: Dr. F. W. Mott, Dr. G. Newton Pitt, Dr. F. Charlewood Turner, Dr. German Sims Woodhead, Mr. Anthony A. Bowlby, Mr. G. H. Makins, Mr. Alfred Pearce Gould, and Mr. Charters J. Symonds. Treasurer: Dr. Sidney Coupland. Honorary Secretaries: Dr. Humphry D. Rolleston and Mr. Charles Alfred Ballance. Council: Dr. John Abercrombie, Dr. J. Rose Bradford, Dr. Sheridan Delépine, Dr. James Galloway, Dr. Archibald E. Garrod, Dr. Herbert P. Hawkins, Dr. R. G. Hebb, Dr. William Hunter, Dr. Cyril Ogle, Dr. J. W. Washbourn, Mr. William H. Battle, Mr. Cecil F. Beadles, Dr. F. G. Hopkins, Dr. H. A. Lediard, Mr. John R. Lunn, Professor John McFadyean, Mr. D'Arcy Power, Mr. J. H. Targett, Mr. Frederick C. Wallis, and Mr. Edgar Willett.

The committee appointed to consider the nomenclature of the condition sometimes described as "Pseudo-tuberculosis" brought up its report. The committee reported that:—1. The term "pseudo-tuberculosis" had been applied to a number of distinct morbid processes which agreed only in the presence of small nodular tubercles. Amongst them were: (*a*) a number of bacterial infections caused by bacilli and cocci of various species, (*b*) blastomycosis, (*c*) streptothricosis, (*d*) aspergillosis, (*e*) protozoal infection, and (*f*) pathological conditions arising from the presence of higher animal parasites in the lungs. 2. Confusion had arisen from the employment of the word "tubercle" in two senses: (1) as a general anatomical term for a small nodule and (2) in a specific sense for the nodular lesions of the disease produced by the tubercle bacillus of Koch. 3. The word "tubercle" should no longer be used as a general anatomical term, but if used at all it should be only as a designation of the nodular lesions produced by the tubercle bacillus. To prevent ambiguity, however, they suggested that all lesions having the form of "tubercles" should be called generally "nodules," those produced by Koch's bacillus being distinguished as "tuberculous nodules," and that the nodules produced by other causes should in like manner be distinguished by a prefix indicative of their cause if known; as, for example, "glanders nodule," "aspergillar nodule," or, if their cause was not known, by some distinctive designation not involving any reference to the word "tubercle." They further suggested that the diseases themselves (as distinguished from the lesions produced) should when possible be designated in accordance with the plan indicated in headings (*b*), (*c*), and (*d*), "blastomycosis," &c. The term "pseudo-tuberculosis" would then become superfluous and ought to be discarded altogether.—The report was signed by Dr. J. F. Payne (chairman), Professor John McFadyean, Mr. S. G. Shattock, Dr. J. W. Washbourn, Professor G. Sims Woodhead, and Mr. A. G. R. Foulerton.

CLINICAL SOCIETY OF LONDON.

Right Colotomy for Chronic Colitis. — Empyema of the Maxillary Sinus. — Pathology and Treatment of Chronic Empyema of the Maxillary Sinus.

A MEETING of this society was held on May 12th, the President, Mr. LANGTON, being in the chair.

Dr. HALE WHITE and Mr. GOLDING-BIRD contributed a paper on Three Additional Cases of Right Colotomy for Chronic Colitis. The object in all three cases was to give the colon absolute rest. Case 1.—The patient was a woman, aged 36 years, seen with Dr. A. E. Taylor. She had had membranous colitis for 20 years and latterly great pain, with almost complete inability to take food. She was wasted, anæmic, and a complete invalid, and was unable to take any exercise. The whole colon was tender to pressure. On May 13th, 1896, the first stage of right lumbar colotomy was performed, the bowel being opened six days later. The patient was relieved from pain and gained steadily in strength. In May, 1897, the artificial anus was closed. In November, 1898, she said that she was perfectly well; she ate ordinary food and took active outdoor exercise. Case 2. — The patient was a woman, aged 31 years. In September, 1896, she began to have abdominal pain and soon, because of the pain, gave up taking solid food. Her illness continued until her admission into Guy's Hospital, under the care of Dr. Pye-Smith, in December, 1897, when she was found to be passing membrane. She was then very anæmic and weak and was suffering severely. As she became worse in spite of all medical treatment the first stage of right lumbar colotomy was performed on March 3rd, 1898, the bowel being opened on March 8th. She remained four months in the hospital and when she left she was in perfect health and had remained so up to the last time she was seen. It was proposed to close the artificial anus this spring. The patient was averse from hurrying as she was so well in the present condition. Case 3.—The patient, a man, aged 35 years, had been in the tropics and Egypt. Eight years ago he had had diarrhœa with bleeding. This had continued on and off till his admission to Guy's Hospital. He had suffered much from abdominal pain. He had been treated in hospital medically without any success. He was admitted into Guy's Hospital in November, 1888. He had continuous diarrhœa, had lost control over the bowels, was very wasted, anæmic, and had the appearance of a man who had not much longer to live. As he was becoming worse, on Dec. 31st, 1898, the first stage of a cæcotomy was performed and the bowel was opened five days later. He gained much flesh and colour, quite lost his abdominal pain, and left the hospital at the end of February feeling well enough to work and in May reported himself as very well. He was shown to the society and appeared to be well, but complained of being prevented from working owing to escape of liquid fæces from the wound when he stooped. Dr. Hale White and Mr. Golding-Bird pointed out that all *a priori* argument was in favour of a right colotomy for chronic disease of the colon, for it secured absolute rest for that structure, and the cases now brought forward showed clearly that the colon was not necessary for the maintenance of perfect health. They recommended palliative or curative right-sided colotomy for severe and otherwise hopeless examples of the following diseases: (1) intractable membranous colitis; (2) all forms of chronic ulceration of the colon which had resisted medical treatment and which were obviously otherwise incurable; most cases of very chronic dysentery were probably to be cured without colotomy; and (3) cases of idiopathic dilatation of the colon. The colotomy must be right-sided and colotomy was preferable to cæcotomy, for when the

latter operation was done fluid fæces escaped from the artificial anus and this gave rise to much trouble, while further it was difficult to prevent some fæces passing on into the colon. In the three cases of membranous colitis reported it was interesting to observe that the formation of membrane ceased directly the bowel was stitched to the skin and before it was opened. Its formation appeared to be reflexly inhibited and this was of importance as pointing to a large neurotic element in the cases—a view which was supported by the fact that membranous colitis was most common in women, that all the cases operated upon had been in women, and all had had a history of pelvic troubles. It was not necessary to wash out the bowel from the artificial to the natural anus. More experience was needed before deciding upon the time for which the artificial anus should be left open, but it should certainly not be less than six months.—The PRESIDENT said that the results of Dr. Hale White and Mr. Golding-Bird seemed to show that an opening into the ascending colon would relieve this terrible condition. He himself had a case under his care at the present time in which he proposed to open the colon for this disease. He asked whether, from the point of view of surgical treatment, any distinction was drawn between membranous cases and those of mucous colitis. He also asked whether there had been any difficulty in closing the opening in those cases in which it had been kept open for several months.—Dr. HINGSTON FOX mentioned the case of a gouty woman, 48 years of age, who was under his treatment for chronic colitis. She had hæmorrhage from the bowel for some time which was attributed to hæmorrhoids. In August last she took to her bed with severe hæmorrhage and frequent motions containing much mucus and pus. Enemata and local treatment caused much irritation. The symptoms ultimately subsided very rapidly after the sphincter had been forcibly stretched by Mr. Charters Symonds and she was well for some months, but lately there had been some return of symptoms.—Dr. NORMAN DALTON asked whether the method had ever been tried in cases of acute ulcerative colitis.—Mr. CHARTERS SYMONDS said that in the case mentioned by Dr. Hingston Fox he had been led to dilate the sphincter because the disease appeared to be localised to the lower end of the rectum and he mentioned another case in which there was hæmorrhage from the rectum in which examination revealed nothing abnormal and in which the symptoms ceased after dilatation of the sphincter. He thought that right colotomy was better than left and mentioned a case in which he regretted that he had chosen the left operation. The patient was a man, 60 years of age, who had had four attacks of hæmorrhage from the bowel. There were hectic temperature and signs of ulceration. A left inguinal colotomy was performed and the lower part of the bowel was washed out with temporary relief, but the bowel contracted and the artificial anus could not be closed. At the necropsy many nodules of new growth could be seen on the wall of the intestine and Mr. Symonds thought that longer relief would have been given if the ascending colon had been opened.—Mr. W. J. WALSHAM asked what method was adopted for closing the wound.—Dr. HALE WHITE, in reply, said that the degree and not the variety of colitis was the guide as to surgical treatment. He did not know of any cases of acute ulcerative colitis which had been treated by this method.—Mr. GOLDING-BIRD, in reply, said that he had not met with difficulty in closing the wound. He used the same method which had been employed by Laurie, freeing the bowel round for three-quarters of an inch and then uniting the raw surfaces by Lembert's sutures. Cases of acute ulcerative colitis were seldom recognised. He mentioned one case in which a girl who was admitted for supposed painful anal fissure died with symptoms of acute colitis and subacute peritonitis, and after death most extensive ulceration of the whole colon was discovered.

Dr. STCLAIR THOMSON read a paper on Empyema of the Maxillary Sinus, undoubtedly of two years' and probably of seven years' duration, with persistent cough and regularly recurring headache, which was completely cured in eight weeks by simple drainage through a tooth socket. He said that he recorded the case as there had been a tendency on the part of some rhinologists lately to disparage the method of treatment through the alveolar border which was first employed by Cowper as long ago as 1698. Indeed, some practitioners held that this method was quite futile in cases of long standing. In the case which he related he had positively diagnosed the empyema two years before the patient was operated on and the history pointed to the presence of pus in the antrum of Highmore for possibly seven years. During this period the patient had suffered from chronic cough which had resisted every treatment. She had also for more than four years had what she described as a frightful headache, lasting three days, and regularly recurring with the cessation of menstruation. The maxillary sinus was opened with a drill through the alveolar border; a spiral (Ellis) drainage tube was inserted; and the cavity was washed out once daily with a simple alkaline lotion. At the end of a month the liquid came through quite clear and doubtless treatment might then have been discontinued. For the sake of security the washing out was continued at decreasing intervals for another month, when the drainage tube was removed and the opening allowed to close. The patient's cough entirely ceased, the headaches never recurred again, and the result was confirmed by observations nine months afterwards. In all cases of empyema of the maxillary antrum—especially when there was already a hollow tooth socket—this simple method of treatment should be tried before having recourse to more severe operative measures. The opening was easily made, the patient was able to carry out the treatment at home, and it did not prevent a larger operation later if the suppuration proved intractable. The case also showed that a long history of empyema did not necessarily show that the case would resist cure by this easy method.

Mr. T. MARK HOVELL and Mr. FREDERIC EVE read a paper on Cases Illustrating the Pathology and Treatment of Chronic Empyema of the Maxillary Sinus. The paper demonstrated that chronic antral empyema was frequently associated with the formation of papillary outgrowths from the lining of the cavity, so abundant in some instances as to fill it. These could only be effectually dealt with by free opening of the cavity and removal of the growth and even then they sometimes recurred. Antral suppuration was sometimes the earliest symptom of malignant disease commencing in that cavity. In six consecutive cases related numerous papillary growths existed in three, a large polypus in one case, granulation in one case, and in only one instance was the lining membrane of the cavity natural. In the three cases presenting well-marked papillary growths suppuration had existed for periods varying from five months to three years, while in a patient with polypoid growth the discharge from the nostril had existed for two or three years. The pus contained streptococci in three cases in which a bacteriological examination had been made. The treatment consisted in freely opening the antrum through the canine fossa so that the cavity could be inspected and the growths removed; and in two instances a counter opening was made through the inner wall of the antrum at the level of the floor of the interior meatus. The cavity was first packed with iodoform gauze and afterwards treated with antiseptic irrigation. In one case the growths recurred and the antral wall was again scraped. The three patients whose antra contained papillary growths had previously been treated by tapping through the alveolus and the insertion of a tube without improvement. All the patients were cured except one who was greatly improved. It was pointed out that the antral growths would tend to increase the mischief by causing retention of pus owing to the blocking of the orifice into the nostril or such a small opening as could be made through the alveolus. The only treatment likely to be effectual was therefore free exposure of the cavity and removal of the growths. Bare pieces of fangs projecting through the floor should be sought for. The seventh case related was that of a man, aged 57 years, in whom antral suppuration was the earliest symptom of malignant disease in that cavity. On opening the antrum it was found to be filled with carcinoma, the existence of which had not previously been suspected. The superior maxilla was subsequently removed successfully.—Sir FELIX SEMON thought that it was possible to treat the great majority of cases successfully by the method of simple drainage through the alveolus although there seemed to be a tendency among the younger rhinologists in the direction of more complicated methods of procedure. Most of the cases of antral empyema were due to dental trouble. In a minority of cases of some standing there were papillary outgrowths, and opening and scraping as performed by Mr. Eve and Mr. Hovell were required, but the milder method should be tried first as routine treatment.—Mr.

CHARTERS SYMONDS agreed that alveolar drainage should always be the first step. In the long-standing cases where this did not cure the antrum should be opened and an independent opening made in the inner wall below the inferior turbinated bone. It was usual in such cases to find polypi or papillary outgrowths.—Mr. W. J. WALSHAM also agreed. He mentioned a case in which the empyema was found to be due to a fang which had been retained when the tooth with two other fangs had been extracted.—Dr. STCLAIR THOMSON said that he had seen cases heal after syringing for 18 months or two years. Patients did not find the syringing irksome.—Mr. EVE, in reply, said that he and Mr. Hovell performed simple drainage through the alveolus first. The cases which they had brought forward represented the minority in which this procedure did not cure the patients.

OPHTHALMOLOGICAL SOCIETY.

Tumours of the Iris.—Unusual Form of Opacity of the Cornea.—Vascular Formation in the Vitreous in Diabetes.—Sloughing of the Cornea rapidly following on Fracture of the Base of the Skull.—Primary Carcinoma of the Eyeball.—Carcinoma of the Eye Secondary to that of the Lung.—Traumatic Ptosis.—Piece of Glass Localised in the Eye by Means of the Roentgen Rays.—Eyeball with Fragment of Steel Lodged in its Coats.—Solid Œdema of the Eyelids.—Artificial Eyes.—Filamentary Keratitis.—Orbital Tumour.

A CLINICAL meeting of this society was held on May 4th, Mr. H. R. SWANZY, President, being in the chair.

Dr. A. H. THOMPSON showed a microscopic section of a Tumour from a case which had been shown at a previous meeting of the society. The portion of iris containing the tumour was removed and the patient now had vision equalling $\frac{6}{9}$ in the eye. The tumour was probably a spindle-celled sarcoma.

Mr. TREACHER COLLINS showed a case in which the Tumour occupied the upper inner part of the Iris and the lens was cataractous. The patient was a woman, aged 63 years, who had had a black spot in the eye since childhood. The piece of iris was removed and the cataract was extracted at the same time. The growth consisted of large endothelial cells with sharply-defined nuclei. It resembled in structure pigmented moles of the skin and was probably innocent.—Mr. JOHN GRIFFITH thought that Dr. Thompson's case was a myoma from the root-shaped character of the nuclei and that Mr. Collins's case was a large round-celled sarcoma.

Mr. TREACHER COLLINS showed an Unusual Form of Opacity of the Cornea. It was present in both eyes, but was more marked in the left. It had much the appearance of a broken cobweb stretched across the cornea; the lines were in the corneal substance. They were possibly the tracks of old blood-vessels after interstitial keratitis but they were very wide for blood-vessels and did not extend to the periphery of the cornea.—Mr. JULER thought that they were tracks of old blood-vessels; there was a suspicion of scarring of the angles of the mouth which he thought made previous interstitial keratitis probable.—Dr. BREUER thought that they were the lines which were sometimes seen in the superficial punctate keratitis described by Fuchs.—Mr. SILCOCK suggested that they might be blocked lymphatic vessels which had resulted in bands of fibrous tissue.—Dr. HILL GRIFFITH asked if the possibility of the lines being due to a vegetable fungus had been considered.

Mr. ARNOLD LAWSON showed a patient who had been known to be diabetic for three years and who exhibited a Vascular Formation in the Vitreous. His sight had failed for two years in the right eye and for six months in the left. The right lens was opaque; in the left eye there was at first a vitreous haze which obscured the details of the fundus. As this cleared there was found a connective-tissue formation consisting of feathery tufts proceeding from a central stalk richly supplied with blood-vessels.

Dr. LEDIARD showed a man, aged 38 years, who had been knocked down by an engine and who exhibited Sloughing of the Cornea rapidly following on Fracture of the Base of the Skull. When first seen he was semi-comatose; he had right facial paralysis, the eye remaining open, severe scalp wounds, and the escape of cerebro-spinal fluid from the ear; the fifth nerve was uninjured. Notwithstanding the care that was taken of him his cornea sloughed and the eye had to be excised. The probable reason for the sloughing was the exposure of the cornea consequent on the facial paralysis and the condition of semi-insensibility induced in the cornea by the partial coma.

Mr. SIMEON SNELL (Sheffield) showed a specimen of Primary Carcinoma of the Eyeball. The patient was a man, aged 69 years. There was a history of an injury to the eye (cornea) 14 years before. When first seen almost the whole of the cornea was involved in a nodulated, hard, irregular growth. Careful examination failed to disclose any growth elsewhere in the body. The eyeball was enucleated, the orbit was cleared out, and chloride of zinc paste was applied to the socket. The growth had perforated the globe posteriorly. Mr. Treacher Collins examined the eyeball and reported that the appearances of the growth were typically those of carcinoma and that it originated within the globe, but in which structure it was impossible to say.—Mr. COLLINS said that it was formerly the opinion that growths primarily occurring in the eye were sarcomata or gliomata, but it was known now that carcinomata occurred starting from the tubular glands of the ciliary body; they might also start in the pigment epithelium of the iris and choroid; he thought that Mr. Snell's case probably originated in the ciliary body.—Mr. SILCOCK had seen orbital tumours having a structure similar to the one in question; possibly these might be endotheliomata and not epitheliomata.—Dr. BRONNER remarked that as visceral carcin[illegible] for a long time without revealing its[illegible] cautious in accepting a carcinoma i[illegible] growth.—Mr. JESSOP asked wheth[illegible] recurrence.

Mr. JOHN ROWAN showed a s[illegible] Eye Secondary to that of the [illegible] cancer occupying the lower p[illegible] ing the retina; its origin was [illegible] brane of the bronchi; the pr[illegible] were similar in character.

Mr. SNELL showed a stereos[illegible] Traumatic Ptosis.

Mr. MACKENZIE DAVIDSON [illegible] localised in the Eye by means [illegible] fragment of a Florence flask dur[illegible] went into the patient's eye. It w[illegible] quite clearly, but was less dense tha[illegible] The only modification of method used [illegible] the rays were passed obliquely through [illegible] avoid bone as much as possible.

Mr. GEORGE MACKAY showed an Eyeball with Fragment of Steel Lodged in its Coats, with skiagrams. A traumatic cataract had been formed, which was removed, leaving the media clear. The position of the foreign body could be seen by the ophthalmoscope. As it appeared to be encapsuled it was not interfered with; after an interval of quiescence the vision failed and the eye became irritable; the iris had a tawny brown colour. Removal of the foreign body by the magnet failed. After enucleation it was found fastened to the coats of the eye. In order to trace the parts of the eye discoloured by the rust of the iron Prussian blue was formed with it; the corneal epithelium and the filtration angle were the parts most widely stained. Descemet's membrane escaped.

Mr. ANDERSON CRITCHETT showed a case of Solid Œdema of the Eyelids. The patient had erysipelas in 1894 followed by another attack later. Fulness of the lids followed; they were treated by pressure, puncture, and incision without benefit. The mass had been excised by Mr. Higgens but had recurred. Mr. Eyre had photographed the same case five years before. At that time the upper lids were more swollen than the lower. He had seen seven similar cases, all of them after erysipelas.—Mr. FROST, Mr. SILCOCK, and Mr. MACKAY spoke of similar cases.

Mr. CRITCHETT also showed samples of Snellen's Artificial Eyes.

Dr. RAYNER BATTEN showed a woman, aged 29 years, with Filamentary Keratitis. She had had chronic conjunctivitis one year. A number of threads were seen hanging from the surface of the cornea near its edge; they were about one millimetre long and consisted of a twisted rope of epithelium. No vesicles were seen. They were symmetrical in the two eyes.

Mr. JULER showed a case of Orbital Tumour. There was a history of proptosis for two months. A fluctuating tumour was felt at the upper inner margin of the right orbit; dark

blood escaped on tapping it; he thought it was a vascular sarcoma.—Mr. LAWFORD asked if the nose had been explored as the case might possibly be a distended ethmoidal cell.—Mr. LANG had met with a similar case consisting of broken-down nævoid tissue.

BRITISH GYNÆCOLOGICAL SOCIETY.

Salpingitis.—Pyosalpinx.

A MEETING of this society was held on May 11th, the President, Dr. H. MACNAUGHTON-JONES, being in the chair.

Mr. J. W. TAYLOR (Birmingham) read a paper on the Treatment of Gonorrhœal Salpingitis. In considering the question of the curability of gonorrhœa in women he related the history and outcome of an inquiry extending over many years and maintained the following propositions. 1. That a large number of women who are suffering from tubal disease have been at some time or other exposed to the infection of syphilis as well as of gonorrhœa; that these undoubtedly show marked improvement after a prolonged course of mercury and iodides, and in the course of this treatment, unless acute pyosalpinx intervenes (in which case medicine is useless), it is the rule rather than the exception for all gross physical signs of disease to slowly and permanently disappear. 2. That many cases in which there is no history of syphilis, including cases in which there is the unmistakeable history of gonorrhœa pure and simple as the sole cause and starting-point of tubal disease, do similarly improve and get permanently well under the same course of treatment, provided always that the disease stops short of acute pyosalpinx and its dangerous complications. 3. That acute pyosalpinx is peculiarly liable to occur in the first place on the left side of the body and its special severity is probably due to secondary infection from the rectum; that such cases whenever possible should be treated by free incision of the posterior vaginal fornix, by thorough exploration and emptying of all pus cavities from the pouch of Douglas, and by iodoform gauze drainage; and that this is far preferable to the older operation of removal of the appendages which is not only much more dangerous but is peculiarly liable to be followed by fæcal fistula, an operation-sequel sometimes worse than death itself. 4. That such cases of mixed infection and acute suppuration, treated by operative evacuation of the pus with or without removal of the appendages, do sometimes not only recover but remain permanently well without further treatment, the acuteness of the inflammation appearing to terminate the process of infection. In other cases recovery is not so complete, relapses are met with, and these cases should be followed up by a course of specific treatment, the beneficial result of this being often immediately manifest when the wound tissues are unhealthy and the healing is delayed. 5. That occlusion of the tubes and peri-tubal adhesions consequent on gonorrhœal salpingitis have no direct specific causation and must be regarded rather as secondary mechanical results of the local peritonitis which has been caused by salpingitis. Their absorption and disappearance will not therefore be secured by the cure of the gonorrhœa and sterility may persist although gonorrhœa may be entirely eradicated from the system. 6. That in gonorrhœa of the pelvis there will probably remain a residuum of intractable cases, particularly cases of complication with other diseases, such as fibroids of the uterus. That in these cases operative removal of the organs affected will still be required, and that vaginal hysterectomy, whenever possible, with or without removal of the appendages, is not only the most rational operation in theory but is productive of the best final results.

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CHARTERS SYMONDS agreed that alveolar drainage should always be the first step. In the long-standing cases where this did not cure the antrum should be opened and an independent opening made in the inner wall below the inferior turbinated bone. It was usual in such cases to find polypi or papillary outgrowths.—Mr. W. J. WALSHAM also agreed. He mentioned a case in which the empyema was found to be due to a fang which had been retained when the tooth with two other fangs had been extracted.—Dr. STCLAIR THOMSON said that he had seen cases heal after syringing for 18 months or two years. Patients did not find the syringing irksome.—Mr. EVE, in reply, said that he and Mr. Hovell performed simple drainage through the alveolus first. The cases which they had brought forward represented the minority in which this procedure did not cure the patients.

OPHTHALMOLOGICAL SOCIETY.

Tumours of the Iris.—Unusual Form of Opacity of the Cornea.—Vascular Formation in the Vitreous in Diabetes.—Sloughing of the Cornea rapidly following on Fracture of the Base of the Skull.—Primary Carcinoma of the Eyeball.—Carcinoma of the Eye Secondary to that of the Lung.—Traumatic Ptosis.—Piece of Glass Localised in the Eye by Means of the Roentgen Rays.—Eyeball with Fragment of Steel Lodged in its Coats.—Solid Œdema of the Eyelids.—Artificial Eyes.—Filamentary Keratitis.—Orbital Tumour.

A CLINICAL meeting of this society was held on May 4th, Mr. H. R. SWANZY, President, being in the chair.

Dr. A. H. THOMPSON showed a microscopic section of a Tumour from a case which had been shown at a previous meeting of the society. The portion of iris containing the tumour was removed and the patient now had vision equalling $\frac{6}{9}$ in the eye. The tumour was probably a spindle-celled sarcoma.

Mr. TREACHER COLLINS showed a case in which the Tumour occupied the upper inner part of the Iris and the lens was cataractous. The patient was a woman, aged 63 years, who had had a black spot in the eye since childhood. The piece of iris was removed and the cataract was extracted at the same time. The growth consisted of large endothelial cells with sharply-defined nuclei. It resembled in structure pigmented moles of the skin and was probably innocent.—Mr. JOHN GRIFFITH thought that Dr. Thompson's case was a myoma from the root-shaped character of the nuclei and that Mr. Collins's case was a large round-celled sarcoma.

Mr. TREACHER COLLINS showed an Unusual Form of Opacity of the Cornea. It was present in both eyes, but was more marked in the left. It had much the appearance of a broken cobweb stretched across the cornea; the lines were in the corneal substance. They were possibly the tracks of old blood-vessels after interstitial keratitis but they were very wide for blood-vessels and did not extend to the periphery of the cornea.—Mr. JULER thought that they were tracks of old blood-vessels; there was a suspicion of scarring of the angles of the mouth which he thought made previous interstitial keratitis probable.—Dr. BREUER thought that they were the lines which were sometimes seen in the superficial punctate keratitis described by Fuchs.—Mr. SILCOCK suggested that they might be blocked lymphatic vessels which had resulted in bands of fibrous tissue.—Dr. HILL GRIFFITH asked if the possibility of the lines being due to a vegetable fungus had been considered.

Mr. ARNOLD LAWSON showed a patient who had been known to be diabetic for three years and who exhibited a Vascular Formation in the Vitreous. His sight had failed for two years in the right eye and for six months in the left. The right lens was opaque; in the left eye there was at first a vitreous haze which obscured the details of the fundus. As this cleared there was found a connective-tissue formation consisting of feathery tufts proceeding from a central stalk richly supplied with blood-vessels.

Dr. LEDIARD showed a man, aged 38 years, who had been knocked down by an engine and who exhibited Sloughing of the Cornea rapidly following on Fracture of the Base of the Skull. When first seen he was semi-comatose; he had right facial paralysis, the eye remaining open, severe scalp wounds, and the escape of cerebro-spinal fluid from the ear; the fifth nerve was uninjured. Notwithstanding the care that was taken of him his cornea sloughed and the eye had to be excised. The probable reason for the sloughing was the exposure of the cornea consequent on the facial paralysis and the condition of semi-insensibility induced in the cornea by the partial coma.

Mr. SIMEON SNELL (Sheffield) showed a specimen of Primary Carcinoma of the Eyeball. The patient was a man, aged 69 years. There was a history of an injury to the eye (cornea) 14 years before. When first seen almost the whole of the cornea was involved in a nodulated, hard, irregular growth. Careful examination failed to disclose any growth elsewhere in the body. The eyeball was enucleated, the orbit was cleared out, and chloride of zinc paste was applied to the socket. The growth had perforated the globe posteriorly. Mr. Treacher Collins examined the eyeball and reported that the appearances of the growth were typically those of carcinoma and that it originated within the globe, but in which structure it was impossible to say.—Mr. COLLINS said that it was formerly the opinion that growths primarily occurring in the eye were sarcomata or gliomata, but it was known now that carcinomata occurred starting from the tubular glands of the ciliary body; they might also start in the pigment epithelium of the iris and choroid; he thought that Mr. Snell's case probably originated in the ciliary body.—Mr. SILCOCK had seen orbital tumours having a structure similar to the one in question; possibly these might be endotheliomata and not epitheliomata.—Dr. BRONNER remarked that as visceral carcinoma might exist for a long time without revealing itself they ought to be cautious in accepting a carcinoma in the eye as a primary growth.—Mr. JESSOP asked whether there had been any recurrence.

Mr. JOHN ROWAN showed a specimen of Carcinoma of the Eye Secondary to that of the Lung. It was a scirrhous cancer occupying the lower part of the fundus and detaching the retina; its origin was in the glands or mucous membrane of the bronchi; the primary and secondary growths were similar in character.

Mr. SNELL showed a stereoscopic photograph of a case of Traumatic Ptosis.

Mr. MACKENZIE DAVIDSON showed a Piece of Glass localised in the Eye by means of the Roentgen Rays. A fragment of a Florence flask during a chemical experiment went into the patient's eye. It was shown by the x rays quite clearly, but was less dense than metal in appearance. The only modification of method used in this case was that the rays were passed obliquely through the eye so as to avoid bone as much as possible.

Mr. GEORGE MACKAY showed an Eyeball with Fragment of Steel Lodged in its Coats, with skiagrams. A traumatic cataract had been formed, which was removed, leaving the media clear. The position of the foreign body could be seen by the ophthalmoscope. As it appeared to be encapsuled it was not interfered with; after an interval of quiescence the vision failed and the eye became irritable; the iris had a tawny brown colour. Removal of the foreign body by the magnet failed. After enucleation it was found fastened to the coats of the eye. In order to trace the parts of the eye discoloured by the rust of the iron Prussian blue was formed with it; the corneal epithelium and the filtration angle were the parts most widely stained. Descemet's membrane escaped.

Mr. ANDERSON CRITCHETT showed a case of Solid Œdema of the Eyelids. The patient had erysipelas in 1894 followed by another attack later. Fulness of the lids followed; they were treated by pressure, puncture, and incision without benefit. The mass had been excised by Mr. Higgens but had recurred. Mr. Eyre had photographed the same case five years before. At that time the upper lids were more swollen than the lower. He had seen seven similar cases, all of them after erysipelas.—Mr. FROST, Mr. SILCOCK, and Mr. MACKAY spoke of similar cases.

Mr. CRITCHETT also showed samples of Snellen's Artificial Eyes.

Dr. RAYNER BATTEN showed a woman, aged 29 years, with Filamentary Keratitis. She had had chronic conjunctivitis one year. A number of threads were seen hanging from the surface of the cornea near its edge; they were about one millimetre long and consisted of a twisted rope of epithelium. No vesicles were seen. They were symmetrical in the two eyes.

Mr. JULER showed a case of Orbital Tumour. There was a history of proptosis for two months. A fluctuating tumour was felt at the upper inner margin of the right orbit; dark

blood escaped on tapping it; he thought it was a vascular sarcoma.—Mr. LAWFORD asked if the nose had been explored as the case might possibly be a distended ethmoidal cell.—Mr. LANG had met with a similar case consisting of broken-down nævoid tissue.

BRITISH GYNÆCOLOGICAL SOCIETY.

Salpingitis.—Pyosalpinx.

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one of 10 months pregnancy. Dr. Braithwaite saw the case in consultation.

The following cases, pathological specimens, &c., were shown:—

Dr. ALLAN: A skull showing Localised Hypertrophy from a patient who suffered from tuberculosis.

Dr. BARRS: Tubercle Bacilli from a Pleuritic Effusion.

Mr. LITTLEWOOD: Perforated Gastric Ulcer treated by excision of the ulcer and closure of the peritoneum (patient and specimen shown).

Dr. WARDROP GRIFFITH: Cirrhosis of the Liver with Hæmorrhage from the Œsophageal Veins.

Mr. W. THOMPSON: Inflamed Testicle with Twisted Cord simulating Strangulated Hernia.

Dr. CHURTON: A specimen of Dilated Prostatic Urethra, Bladder, Ureters, &c., from a boy, eight years of age, supposed to be in good health until six days before his death (from uræmia).

Dr. MANTLE: A Recent Addition to the Royal Halifax Infirmary Museum—Dicephalic Monster.

Mr. WARD: Hydronephrosis from Impacted Calculus.

Mr. SECKER WALKER: Dr. Ascher's Transparent Perimeter for Rapid Measurement of the Field of Vision.

Dr. TREVELYAN: A Case of Lupus of the Larynx in a girl, aged 19 years, who had scars of old lupus on the face.

The annual meeting of the society was held at the close of the ordinary meeting. The annual report and balance-sheet were presented and passed. The members of the society numbered 340 and the average attendance at the meetings had been 60. The following officers were elected for the ensuing year:—President: Professor C. J. Wright. Vice-presidents: Dr. Gordon Black (Harrogate) and Dr. A. G. Barrs, Mr. Edwin Lee (Dewsbury), Dr. Mouillot (Harrogate), Dr. Wardrop Griffith, Dr. H. J. Clarke (Doncaster), Mr. B. G. A. Moynihan, and Mr. Secker Walker took the place of the six retiring members of the committee. Honorary secretaries: Dr. E. F. Trevelyan and Mr. Lawford Knaggs.

EDINBURGH OBSTETRICAL SOCIETY.

Œdema Glottidis during Pregnancy.—Puerperal Hyperpyrexia.—Pelvic Contraction.—Peritoneal Effusion.—Exhibition of Specimens.

A MEETING of this society was held on May 10th, Dr. HALLIDAY CROOM, President, being in the chair.

Dr. LUCAS read a paper on a Fatal Case of Œdema Glottidis during Pregnancy. The patient who was in about the eighth month of pregnancy developed an acute inflammatory affection of the larynx with a temperature of 101° F. There was no membrane on, or congestion of, the pharynx; no membrane was coughed up nor were there any enlarged glands. The urine was free from albumin. The patient died in three days, having refused to allow tracheotomy to be performed.

Dr. J. LAMOND LACKIE read a paper on Puerperal Hyperpyrexia with an Illustrative Case. Hyperpyrexia, he said, might be broadly divided into two classes—the pre-lethal type of Wunderlich and those cases in which the high temperature occurred some time before the death of the patient and was in itself the direct cause of a fatal issue or from which the patient recovered. The pre-lethal type in obstetric practice was probably met with most commonly just before death from eclampsia. But hyperpyrexia occurring during the course of a puerperium must be extremely rare. Pye-Smith of Sheffield recorded a case where after a first normal labour the temperature ranged from 104° F. to 106·2° for three weeks. Wunderlich stated that after parturition the temperature might reach 107·6° and in a few days fall to normal without any apparent cause. A case was recorded where the temperature rose to 110·2° at death on the fifth day following labour; this was probably a pre-lethal rise. The following case was of interest. A woman, aged 36 years, with five children, each being delivered with great difficulty by forceps owing to a contracted brim, went into labour with her sixth child. On examination it was found that as a result of her previous labours the cervix had been so torn that the tear, to the left anteriorly, extended beyond the fornix. She had been previously warned that further labours would be dangerous as the uterus so closely bordered on rupture. Forceps had to be applied owing to complete inertia uteri. The patient did perfectly well until the fourth day, when she had suddenly a severe rigor with a temperature of 105°. As the vaginal discharge was fœtid an intra-uterine douche was given and antipyrin was administered. Two hours later the temperature was 109° and the patient was delirious, and the pulse was very feeble and so rapid that it could not be counted. An ice-pack was given and the temperature was taken in the rectum every 10 minutes. This gradually fell to 103° and after suspension of the ice-pack went down to 99·5°. The patient seemed much better and consciousness had returned. For 20 hours she continued fairly well when another rigor occurred, the temperature rising to 110°. The patient was quite comatose and apparently dying, but the same treatment restored her to consciousness and a favourable state. Meanwhile, intra-uterine douches were used every four hours and per vaginam nothing abnormal could be felt. 24 hours after this attack she had another rigor, the temperature rising to 110°, and shortly afterwards to 112°. The patient was comatose and no pulse could be felt at the wrist; her breathing was stertorous and death was expected every minute. The ice was again applied; 20 grains of antipyrin were administered per rectum and an antiseptic douche was given when a large slough came away with a great quantity of foul-smelling discharge. The temperature gradually fell to 104°, when the special treatment was suspended and stimulants were given freely by the mouth and subcutaneously. The temperature gradually fell until it was very subnormal; on the next day it was normal. A large cervico-vesical fistula formed, so large that it admitted two fingers. The patient made an excellent recovery and the fistula was afterwards successfully operated on. This was a case of severe sapræmia, there being no evidence of pyæmia or septicæmia; the dose of ptomaine poisoning was so severe as to cause hyperpyrexia on three successive nights. Pyæmia and septicæmia, without any reference to the puerperium, account for 17 per cent. of the cases of temperature above 106°, but Dr. Lackie could find no record of a case in which an absorption, as occurred in sapræmia, was the cause of hyperpyrexia. Before the third rigor there was a peculiar restlessness, especially in the eyes, and a deceptive sense of well-being in the patient. This condition had also been noted in acute rheumatism as premonitory to hyperpyrexia. As regards the treatment, an ice-pack was used as the cold-bath treatment was at the moment impossible. The latter through the necessary movement threw a greater strain upon the heart. The temperature should be reduced by active measures till it was midway between the highest recorded and that to which it was desirable to fall. Experience showed that the temperature continued to fall just as much after as during the application of ice or the use of the cold bath.—The PRESIDENT mentioned a case which he had seen where the temperature rose to 110° for three successive nights. It was evidently neurotic in origin.

Dr. HAIG FERGUSON read a paper on Labour complicated by a minor degree of Pelvic Contraction in Primiparæ and Multiparæ.

Dr. FORDYCE read notes on two cases of Peritoneal Effusion.

Dr. J. W. BALLANTYNE exhibited frozen sections of Iniencephalic Fœtus, Anencephalic Fœtus, and Fœtus with retroflexion of the spine, &c.

Dr. FORDYCE showed an Ovarian Tumour with a pedicle twisted to the size of thin cord; it was removed from an insane patient whose mental condition had not undergone any improvement as a result of the operation.

The PRESIDENT showed a Cystic Ovary removed for Mittelschmerz and an Ovarian Tumour from a patient, aged 68 years, who developed dementia and died in six weeks.

IPSWICH CLINICAL SOCIETY.—A meeting of this society was held on May 11th, Mr. S. O. Eades, the President, being in the chair.—Mr. Hoyland showed three young patients with Mitral Disease, to illustrate the marked contrast in general physical development met with in the subjects of heart lesions.—Mr. Fryer showed a man in whom the physical signs of both Mitral and Aortic Regurgitation were present, the murmurs being audible over a very large area. There was marked pulsation of the carotids and pulsation of the retinal artery alternating with a venous pulse. The man enjoyed good health.—Mr. Fryer also showed the Suprarenal Bodies from a case of Addison's Disease in which there had been very little pigmentation. The left

suprarenal body was diseased.—Mr. Eades showed a case of Chronic Dry Eczema.—Mr. J. R. Staddon showed a man with a Rounded, Bony, Hard Prominence on the Right Posterior Wall of the Pharynx. He considered that the case was one of disease of the cervical vertebræ, probably the result of previous caries.—Dr. Brogden read notes of a case of Diphtheria in which antitoxin was administered. The attack was a mild one, but 12 days after apparent recovery a rash resembling that of scarlet fever appeared, with rapid pulse and high temperature. The patient was very ill, much more so than during the diphtheritic attack. Dr. Brogden was inclined to ascribe the second illness to the effect of the antitoxin.—Dr. H. H. Brown showed the Appendix Vermiformis removed from a case of Recurring Appendicitis in a boy. The operation was one of considerable difficulty owing to the firm matting together of the cæcum, omentum, and intestine. The patient made an excellent recovery.—Mr. Corfe showed (for Dr. Vincent): 1. A woman with an Abdominal Tumour the exact nature of which was doubtful. It was impossible to say from the symptoms whether it was an omental growth or a fibroid growth from the uterus. 2. A case of (?) Chronic Meningitis due probably to specific disease of the cranial bones with adherent cicatrices in the scalp. The patient suffered from insomnia and was said to have had some maniacal attacks, and was addicted to the use of morphia. His condition was improving under iodide of potassium.—Mr. Hossack opened a discussion on the Present Epidemic of Influenza. He referred specially to the period of incubation, which appeared to vary, to the slow pulse and subnormal temperature met with, and to the excellent effect of antiseptic treatment in restoring the pulse and the temperature to the normal. He had seen six cases of intractable urticaria following influenza and jaundice was mentioned as a rare sequela.—Dr. H. H. Brown considered that the period of incubation was generally about five or six days and mentioned that the Clinical Research Association now advertised that they could confirm the diagnosis by a bacteriological examination of the sputum. He also mentioned a case in which acute diabetes of severe type followed influenza. The case recovered rapidly under treatment, although the patient appeared to be almost *in extremis* when treatment was begun, and after enjoying perfect health for some years diabetes recurred and the patient died. A similar case had been recorded and it was an interesting question why diabetes occurring as a sequela of influenza should be more amenable to treatment than when it occurred independently, as it certainly seemed to be in this case.—A discussion followed in which Mr. Staddon, Mr. Fryer, Dr. Fowler Ward, Mr. Pridmore, Dr. Ward, and Dr. Sinclair took part.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held on April 26th, Mr. Alexander Miller being in the chair.—Dr. John H. Teacher read a paper entitled, "William Hunter, Anatomist: a Lecture with Demonstration of Preparations from the Obstetrical Series of the Hunterian Museum in Glasgow." The lecture commenced with a protest, implied by the title, against the commonly accepted view that it was as an obstetrician that William Hunter deserved to be remembered. Though nowadays his reputation was chiefly obstetrical and rested on the fame of his great work of obstetric anatomy ("Hunter's Gravid Uterus") and the share he had in reforming the practice of midwifery in England, it was to anatomy and to the organisation and reformation of medical education that his zeal, talents, and fortune were chiefly devoted. The revolution which William Hunter effected in the teaching of anatomy by the establishment of full systematic courses of lectures, and of facilities for dissection by students, and his views as to the importance of anatomy and what a teacher of it should aim at, were briefly set forth. Dr. Teacher next traced the early part of Hunter's career and the circumstances which chiefly determined its direction; the friendship with Cullen, which turned him from theology to medicine; the kindness to him of James Douglas, anatomist and accoucheur, which determined him to settle in London; his leanings towards the practice of surgery; and his ambition to teach anatomy and the means by which he made himself fit to do so. In regard to the last Dr. Teacher referred particularly to his early anatomical writings, his studies in Paris in the winter of 1743–44, regarding which information had been obtained from papers preserved in the Hunterian Museum, and his second visit to the continent in 1748. Hunter's first opportunity of teaching came in 1746 in the form of an invitation from a "Society of Naval Surgeons" to give a course of lectures on operative surgery. To this they asked him to add a course of anatomy; out of this course arose the famous Great Windmill-street School of Anatomy. The circumstances which turned Hunter from surgery to midwifery were then indicated and his practice as a physician and accoucheur (and anatomist) was illustrated by giving an account of his diary of attendance on Queen Charlotte, which was preserved in the Hunterian Museum, and by quotations from his midwifery lectures relative to puerperal fever, bleeding in pregnancy, the forceps, and craniotomy. The meeting concluded with a demonstration of specimens from the obstetrical series of the Hunterian Museum illustrating the anatomy of the placenta, and William Hunter's discoveries relative to the nature of the decidua and the independence of the fœtal and maternal circulations. The demonstration closed with an exhibition of the beautiful dissection of the gravid uterus in the fifth month which was figured in the portrait by Sir Joshua Reynolds, and which was of special interest as being from the case in the investigation of which William Hunter discovered the till then unrecognised condition of retroversion of the gravid uterus.

FORFARSHIRE MEDICAL ASSOCIATION.—A meeting of this society was held on May 3rd, Dr. Mackie Whyte, Vice-President, being in the chair.—Professor Kynoch showed a Uterus removed by Vaginal Hysterectomy for cancer of the cervix.—Dr. Buist showed drawings of a Liver from a case of Acute Yellow Atrophy and of microscopic sections of it. He then quoted statistics of cases in several hospitals of acute yellow atrophy and the relative frequency of its occurrence in cases of pregnancy which he considered was not necessarily a factor in this disease. A case had been under his care which simulated acute yellow atrophy of the liver but proved to be toxæmia from obstruction.—Dr. Mackie Whyte read a paper on the cases of Chronic Tuberculous Peritonitis which had been under his care in the Dundee Royal Infirmary during the last five and a half years. They were 11 in number; nine were dead, one was in a hopeless condition, and one had recovered completely. The single case in which laparotomy had been performed had died and though most of the cases seemed unsuitable for operation when admitted still it was thought it might be more frequently tried. Family tuberculosis was present in seven. In three cases there were marked pleuritic symptoms and in three there was old tuberculosis of the lungs.—Mr. Greig then continued his communication on Two Years in the Surgical Out-patient Room of the Infirmary. In it he discussed the cases of kyphosis and scoliosis, the relative frequency of both in the two sexes, the ages of occurrence, the varieties, and the treatment. He pointed out the difficulty of treatment of these cases in the surgical out-patient department and recommended that if the plaster-of-Paris jacket be used it should be combined with the dorsal position as being likely to afford more support to the spine. In the next place tuberculous disease of bones, osteo-myelitis, periostitis, and osteitis were considered. Lupus was briefly mentioned, especially as regards the parts affected, the age, and sex. Tuberculous adenitis was then referred to and the treatment briefly discussed. Tuberculous arthritis, traumatic synovitis, and sprains were then spoken of, after which short details were given of the cases of rheumatic arthritis, osteo-arthritis, and several varieties of congenital deformities—e.g., retained testis, cleft palate, and nævus.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION.—A general meeting of this society was held on April 28th, Dr. Middlemass Hunt, President, being in the chair.—Mr. Lennox Browne reported that some doubt having been expressed as to the malignant nature of the case of Laryngeal Epithelioma of at least two and a half years' duration exhibited by him at the last meeting, he had removed a portion of the growth and submitted it to Mr. Wyatt Wingrave who reported that it was a "diffuse papilloma undergoing slow malignant transformation." Mr. Wyatt Wingrave said there was a tendency for the cells to group themselves into nests. He concluded that what was in the first instance a comparatively quiet papilloma was probably undergoing active change strongly suggestive of histological malignancy.—The President described a case of Hysterical Aphonia which had lasted 11 years. After a severe mental shock the patient had become mute and had remained so for three or four years, when she

began to whisper, and in the past two years had developed a deep rough voice, which the laryngoscope showed to be produced by vibration of the false vocal cords (taschenbandsprache). All methods of treatment were tried in vain; but the voice returned suddenly six months ago after exposure to great excitement and had remained normal ever since.—Dr. Abercrombie showed a case of Laryngeal Papilloma with Apparent Defect of the Posterior End of the Left Vocal Cord in a boy, aged nine years, the subject of nasal obstruction from hypertrophied tonsils and adenoid growths.—Dr. Dundas Grant showed a case of Asymmetry of the Frontal Sinus revealed by operation.—Mr. Chichele Nourse showed a case of Empyema of the Frontal Sinus treated through the Infundibulum.—Dr. Dundas Grant showed (1) two cases of Radical Operation for Chronic Suppurative Otitis; and (2) a case of Atresia of the Right External Auditory Meatus.

Reviews and Notices of Books.

A Manual of Surgical Treatment. By W. WATSON CHEYNE, M.B. Edin., F.R.C.S. Eng., F.R.S., Professor of Surgery in King's College, London; Surgeon to King's College Hospital, &c.; and F. F. BURGHARD, M.D., M.S. Lond., F.R.C.S. Eng., Teacher of Practical Surgery in King's College, London; Surgeon to King's College Hospital, &c. In Six Parts. Part I. London and Bombay: Longmans, Green, and Co. 1899. Pp. 285. 8vo. Price 10*s.* 6*d.*

THE chief end of surgery is treatment. However interesting pathology may be its importance is almost entirely dependent on the fact that it points out the directions which treatment must follow. Of late years, however, there has been a tendency to magnify the office of pathology at the expense of treatment and indications of this are to be observed in some text-books, where the space devoted to the pathology and therapeutics of a disease does not correspond with their relative importance. The vast increase, moreover, in all branches of surgery in recent years has made it necessary that in a text-book of the science the descriptions of treatment must be abbreviated if it be desired to keep the work within a reasonable size. A real want, therefore, exists for a work in which the accounts of the treatment to be followed are sufficiently detailed to enable readers to conduct the treatment of a case, but in order to prevent the book assuming too great a size something must be omitted, and as numerous treatises exist which deal fully with the pathology of disease and say but little of the treatment, so the pathology may safely be omitted from a work which has to do primarily with treatment. These observations indicate fairly exactly the scope of the work of which the first part lies before us. It is intended to give full details of the treatment of surgical cases from the commencement to the termination of the illness, and the pathology and symptoms are only referred to in so far as is necessary for the appreciation of the principles of the treatment. The authors have not attempted to describe all the methods of treatment which have been or even now are practised, but they have in the main described chiefly those methods which appear to them to be the best, but they refer also, though in less detail, to other methods which are recognised as valuable at the present day. It is obviously difficult to express an opinion of a work of which we have had an opportunity of examining only one-sixth part, but if the succeeding volumes equal the first there will be no two opinions as to the great practical value of this treatise.

This first part contains the treatment of general surgical diseases, including Inflammation, Suppuration, Ulceration, Gangrene, Wounds and their Complications, Infective Diseases and Tumours, and the Administration of Anæsthetics. We will take this last section first. The chapter on anæsthetics has been contributed by Dr. J. F. W. Silk and it is most ably written; it is evidently based on a very wide personal experience of the administration of anæsthetics and it should prove of value, not only to those who act as anæsthetists, but also to all who have anything to do with operations, and notably to the surgeon. Especially useful are Dr. Silk's remarks on the factors which determine the choice of an anæsthetic and he wisely points out that an anæsthetic may be perfectly safe in the hands of an administrator accustomed to its use and yet be highly dangerous when given by one who has had little previous experience of it. The account of the treatment of the difficulties and dangers met with in anæsthesia is good and so also is the description of the various methods of producing locally absence of sensibility. To only one statement in this chapter do we venture to take exception; on page 83 we are told that 150° F. is "as hot as the hand can bear"; a very simple experiment with a bath thermometer will show that 150° is a much higher temperature than most hands, at least, can bear.

Inflammation and its Treatment are dealt with in Chapter I., and especially good is the account of the methods of general and local blood-letting—therapeutic measures which are too much neglected at the present day; but it was surely hardly necessary to figure the spring scarificator, for it is practically never employed at the present time. The subjects of Acute Suppuration and Ulceration occupy the next two chapters and in this connexion Thiersch's method of skin-grafting is fully and carefully described. The very good results which may be obtained by the employment of this method depend chiefly on small and apparently unimportant details and all these minutiæ of treatment are here to be found. The authors classify gangrene as direct, indirect, and specific. It would probably be better to call the first variety "direct traumatic," for some of the specific forms are equally "direct." In the prevention of bedsores there is nothing better than a properly filled water-bed, but much of its value depends on the bed being filled to the correct degree, and this point has not been forgotten, for the authors describe carefully the degree of fulness required.

An important chapter is that dealing with the Treatment of Wounds. In this, after an account has been given of the value of cold as a hæmostatic, we are told that "almost equally efficacious in arresting bleeding is heat." We should certainly feel inclined to place heat far in advance of cold as a hæmostatic, for the influence of cold in most cases passes off rapidly after a dressing has been applied, while the effect of heat, from 110° F. to 115°, is much more permanent. A useful account of saline transfusion for hæmorrhage is given and we coincide with the authors in the opinion that a description of the methods of transfusion of blood, either pure or defibrinated, would take up space which might be more usefully employed otherwise. We think, however, that the authors are under a misapprehension in saying that in the transfusion of blood "the red blood corpuscles introduced soon die"; this only occurs when the blood of one animal is introduced into an animal of a different species and is probably dependent on the difference in the composition of the liquor sanguinis in the two cases.

It might have been pointed out that the entry of air into veins appears to be less common nowadays than formerly and this is in all probability due to the use of anæsthetics, by which the vigour of the respiratory movements is restrained and the systemic veins are usually overfilled, so that if a vein in the "dangerous area" be wounded blood is more likely to flow from the vessel than air to enter it. The chapter on the treatment of wounds is very good and we need only mention specially the description of the button-hole suture; it often happens that those who are not in the habit of employing this stitch experience some difficulty in finishing it off. Three methods in which this may be done

are figured here; the neatest is that in which at the last stitch the needle is introduced in a direction opposite to the other stitches.

The septic complications of wounds are well described and an interesting theory to explain the action of nitrate of silver in limiting the spread of erysipelas is given; it is suggested that the caustic excites a leucocytosis in the part which by the phagocytic action of its component corpuscles acts as a barrier to the onward progress of the micrococcus. A brief but very lucid account is given of the treatment of syphilis and a description of the soft sore follows. It is stated that the chancroid "generally occurs on the prepuce or glans penis," from which it might be gathered that it is rare on the vulva; the statement is of course true if the words "in the male" be inserted.

Chapters on the General Treatment of Tuberculosis and of Tumours, Innocent and Malignant, follow. These refer only to the general principles of treatment and more detailed accounts will be given with the surgery of the special organs and tissues. We have derived much pleasure from the perusal of this part and shall look forward with interest to the appearance of the succeeding sections of the work. The most marked characteristic of the book is the essentially practical nature of the descriptions. The authors are to be congratulated on the successful commencement of the first portion of an arduous task.

Traumatic Separation of the Epiphyses. By JOHN POLAND, F.R.C.S. Eng. With 337 Illustrations and Skiagrams. London: Smith, Elder, and Co. 1898. Royal 8vo. Pp. 926. Price £2 12*s.* 6*d.*

THE old Greek saying that a large book is a large evil is not universally applicable, for the book before us is certainly great, as it extends to nearly 1000 pages, yet it is very far from being an evil for it is a very valuable contribution to an important department of surgery. There is, perhaps, no more frequent error of diagnosis than the mistaking the separation of an epiphysis for a fracture, and, indeed, this mistake is very pardonable, for the amount of information on the subject which is to be found in most of the text-books of surgery is very small. Yet the condition is by no means rare, for Mr. Poland has collected notes of more than 700 cases.

The first chapter deals with the history of the subject, and from it we learn that a sentence in Hippocrates may refer to this lesion, for in speaking of dislocation of the wrist he says that the epiphysis is sometimes displaced, but what was his exact meaning cannot now be determined. A much more definite reference occurs in a book by Realdus Colombus in 1559 and from that time to the present the references in surgical literature increase in frequency and the citations from writers of the present century alone fill several pages; but curiously in 1850 Dr. A. Coulon of Paris, in a treatise on fractures in children, denied the existence of these injuries, and many other writers, while not venturing to deny the occurrence of these lesions, have considered them to be so rare that they are of little practical importance. During the last 20 years it has gradually been acknowledged that the injury is by no means rare and Curtillet in 1891 considered that 20 per cent. of all fractures in children were really cases of separation of an epiphysis.

The next chapter, on the Anatomy of the Epiphysis, is extremely good and it is illustrated by a series of 19 skiagrams taken by Mr. William Webster; they show the appearances of the hand and wrist at various ages from the end of the first year to the seventeenth year.

With regard to the etiology the author considers that the causes producing these traumatic separations are practically the same as those of fracture, but as a rule they are more severe, although in some cases, as in hyper-extension of the knee, the force required is really less than would be needed for fracture. As to the age at which these injuries occur it was formerly thought that they were most common in infancy or in the first few years of childhood, but Mr. Poland's statistics show that from 11 or 12 up to 18 years of age these separations are most frequently met with and in great part this is due to the fact that during this period children are much more exposed to severe injuries than at an earlier age. To be able to diagnose the separation of an epiphysis it is necessary to know the dates at which the epiphyses appear and join and these are clearly given in two chronological tables. As to the relative frequency of the different separations we learn from a table which the author gives that the lower epiphysis of the femur is the most frequently separated and that after it come the upper epiphysis of the humerus and the lower epiphysis of the radius. All the epiphyses which are liable to become separated are then described in order and in each case the diagnosis, treatment, and prognosis are carefully described. In many cases illustrations and skiagrams are given and they add greatly to the value of the descriptions.

On the whole the prognosis is good in these injuries; one of the most troublesome results is arrest of growth of the affected bone and this is especially harmful in the forearm or the leg, where the unequal growth of the two bones leads to distortion. Ankylosis also is not rare as these injuries in the limbs are close to joints.

With each quotation the author gives the reference to the book from which he has taken it, a practice which should be more widely followed. An elaborate index of names referred to is given and there is an equally complete index of subjects. The printing and paper of the book could not be better. In conclusion, we may say that the work may be considered a complete exposition of the subject of which it treats and that for many years to come it will be, not only in this country but abroad also, the standard work on traumatic separation of the epiphyses.

JOURNALS.

Medical Chronicle.—The March number completed vol. x. of its series and the April number marks the commencement of vol. i. of the third series. Simultaneously the duties of editor are taken over by Dr. R. T. Williamson, assistant to the professor of medicine, Owens College, with Dr. F. J. H. Coutts as sub-editor. The journal is produced under the direction of a number of guarantors, of whom Professor D. J. Leech is chairman and Professor Sinclair vice-chairman. The new publishers are Messrs. Sherratt and Hughes, 27, St. Ann-street, Manchester, and the familiar reddish-brown cover has given place to a light blue one. The annual subscription remains 12*s.* 6*d.* as before. The original articles in the April number are (1) by Mr. E. Stanmore Bishop on the Sealing of Operative Wounds about the Abdomen *versus* Treatment by Dressing; (2) by Dr. J. S. Bury on a case of Multiple Peripheral Neuritis ending in Symmetrical Gangrene; and (3) by Professor Delépine on the Effects of the Pollution of Water-supplies.

Edinburgh Medical Journal.—In the May number Dr. William Osler of Baltimore describes three cases of Gastro-intestinal Hæmorrhage occurring in patients who suffered from primary chronic enlargement of the spleen with anæmia, the condition called splenic anæmia by Griesinger. The bleedings were very profuse and occurred from time to time during a period of from nine to 12 years, while in the intervals the patients regained their flesh and strength and were able to carry on their occupations. Dr. Osler agrees with Sir Thomas Watson in considering the etiology of the hæmorrhage to be mechanical congestion. Dr. A. L. Gillespie relates his impressions of a Visit to the Falkenstein

Sanatorium for Phthisical Patients. There are four other original articles.

Dublin Journal of Medical Science.—In the opening article of the May number Dr. H. C. Drury draws a dismal picture of the Prevalence and Effects of Morphinomania or the Uncontrollable Craving for Morphia Administered by Subcutaneous Injection. Dr. Drury discusses the treatment of morphinomania at some length, giving the preference to gradual reduction of the drug, and mentioning the use of atropine and permanganate of potassium as partial antidotes.

Analytical Records
FROM
THE LANCET LABORATORY.

TABLOIDS CONTAINING ARTIFICIAL EFFERVESCENT MINERAL WATER SALTS.

(BURROUGHS, WELLCOME, AND CO., SNOW HILL-BUILDINGS, E.C.)

WE have examined two types of this useful application of the tabloid—namely, the tabloid representing artificial Carlsbad salt and the tabloid representing artificial Vichy salt. In addition to the salts which are identical with those of the respective springs indicated the tabloids contain ingredients which on interaction in water give rise to an agreeable effervescence. The Carlsbad tabloid contained the chief active constituent of this celebrated spring while the Vichy tabloid contained besides alkaline salts some magnesium salts. In the same way tabloids are prepared representing Kissingen, Seltzer, and Vichy with lithium.

VERNISOL.

(JOHN BELL AND CO., 225, OXFORD-STREET, W.)

Vernisol is described as a skin varnish with the advantage of being soluble in water. On rubbing the preparation uniformly on the skin a clean protective film remains after a short time. According to our examination the yield of film is about one-sixth of the total substance. Vernisol is yellowish-brown in colour and has a jelly-like consistence. It possesses the desiderata of a skin varnish—viz., is tenacious, pleasant to use, free from irritants, and may be easily removed by ordinary washing. Vernisol is contained in collapsible tubes and is combined with all the well-known antiseptics.

ANTI-RHEUMATIC BREAD.

(JOHN LAW AND CO., 219, STIRLING-ROAD, GLASGOW.)

The makers of this bread evidently feel justified in calling it "anti-rheumatic" on account of the fact that it contains alkaline potash salts and salicylate of soda. We do not approve of the administration of drugs in food in this manner. In the present instance it is quite possible that the salicylate in arresting the digestive processes would set up dyspepsia. We must allow that the bread is ingeniously prepared, its taste is good and nutty, its texture satisfactory, and the fact that drugs are present would barely be suspected. We note that the bread "may be had from any first-class grocer in the city." Assuming that this should prove a satisfactory way of administering salicylate of soda, under no circumstances should it be tried apart from medical advice. The bread gives a strong violet colour with a few drops of perchloride of iron, while a drop of "alkaline indicator" gives a marked positive reaction.

PHENALGIN.

(THE ETNA CHEMICAL CO., 313, WEST-STREET, NEW YORK. LONDON AGENCY: E. J. REID, 11, DUNEDIN HOUSE, BASINGHALL-STREET, E.C.)

Phenalgin is, according to our analysis, a combination of a well-known coal-tar derivative—an antipyretic and analgesic—with carbonate of soda and ammonia. This class of compound is often intended for popular use in headache and other common maladies. The coal-tar antipyretics, such as antipyrin, antifebrin, and phenacetin, are dangerous in lay hands. The physician knows when these substances are likely to be of service and is perfectly well aware how to combine them for administration. We strongly deprecate the indiscriminate sale of these coal-tar derivatives combined with alkalies under proprietary names as certain remedies for various common complaints.

ESVACH WATER.

(DAVY HILL AND SON, YATES AND HICKS, 64, PARK-STREET, SOUTHWARK, S.E.)

This is not a natural mineral water, though its name might lead to that impression. Most natural mineral waters of the purgative saline class contain that almost inevitable constituent of natural waters, lime, but Esvach water would appear on our analysis to be free from lime salts. What it does contain according to our analysis will be seen from the following figures: magnesium sulphate, 24·65 grammes per litre; sodium sulphate, 11·36 grammes; and carbonate of soda, 6·57 grammes. The total mineral contents thus amount to 42·58 grammes per litre. The specific gravity was ascertained to be 1042·5. The therapeutics of Esvach water will be understood from the results of this analysis.

DAHL'S STERILISED DOUBLE CREAM.

(DAHL MILK CO., DRAMMEN, NORWAY, AND HERBERT FRANCIS AND CO., 8, ARTHUR-STREET WEST, E.C.)

The method employed for the sterilisation of this cream must be regarded as quite satisfactory since on opening the tin not only was the contained cream in perfectly sound condition, but it possessed a flavour closely approaching that of the fresh article. It was practically free from that "scalded" flavour which characterises most tinned dairy products. On analysis the following results were obtained: water, 62·64 per cent.; fat, 30·00 per cent.; mineral matter, 0·45 per cent.; milk sugar and proteids, 6·91 per cent. The cream is of excellent quality and free from preservatives. In some instances cream might suitably and with advantage replace cod-liver oil as a special food and therapeutic agent.

ÉVIAN GROTTES MINERAL WATER.

(RICHARD DAVIS, 20, MADDOX-STREET, REGENT-STREET, W.)

This water is derived from Évian-les-Bains, where occurs a very interesting and remarkable group of caves or grottoes. It is well suited for table use and adapted in some cases for definite treatment since it is mildly alkaline but free from an excessive and what often proves to be objectionable amount of salts. The only mineral ingredient of importance according to our analysis is carbonate of soda, of which we found 0·37 gramme per litre. There is but a trace of common salt present. The total residue obtained on evaporation amounted to 0·45 gramme per litre. The water is free from saline taste but not insipid. We obtained no evidence of organic impurity.

(1) ACOINE; AND (2) HYRGOLUM.

(BURGOYNE, BURBIDGES AND CO., 12 AND 16, COLEMAN-STREET, E.C.)

Acoine is described as a new local anæsthetic and rejoices in the name "diparanisyl-monoparaphenetyl-guanidine hydrochlorate." We prefer the abbreviated name, having once satisfied ourselves that the acoines are alkyl-oxyphenylic guanidines and that they would appear to offer some advantages over cocaine in producing anæsthesia. It is said, for example, that the acoines do not give rise to the symptoms of poisoning sometimes caused by cocaine. An important paper detailing many experiments on the anæsthetic properties of acoine appears in Part I. of the *Therapeutische Monatshefte*, 1899. The results are interesting, tending to show that in acoine we possess a new substance for producing satisfactory local anæsthesia. Hyrgolum is described as a new allotropic form of metallic mercury.

From a few experiments which we have made with it we cannot allow that it is strictly speaking an allotropic form of mercury. Thus on heating it splits up into mercury and ammonia gas. It is a hard, brittle solid, somewhat resembling the black scales so often seen in the forge of a smithy.

(1) ANTITUSSIN; (2) FLUOR-RHEUMIN; AND (3) EPIDERMIN.
(T. CHRISTY AND CO., 25, LIME-STREET, E.C.)

These three compounds are derived di-fluor-di-phenyls. The formula for di-fluor-di-phenyl is $C_6H_4 C_6H_4 F_2$ and is obtained by acting upon certain phenyl compounds with concentrated hydrofluoric acid. Antitussin is an ointment containing di-fluor-di-phenyl and is described as "a certain cure for whooping-cough and diseases of the throat and neck," the ointment to be applied very energetically. Fluor-rheumin is another ointment containing as a basis fluor-phenetol di-fluor-di-phenyl and is said to give marked relief in rheumatism, lumbago, and influenza. Epidermin is a related compound but with xylol in the molecule. Contained in an ointment it is said to serve as a useful antiseptic in the treatment of unhealthy suppurations as well as of burns. Fluorine compounds have been known for some time as powerful antiseptics and their combination with phenyl groups would appear to afford a series of medicated unguents which deserve attention.

New Inventions.

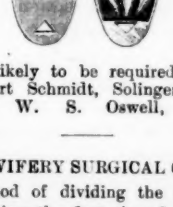
ASEPTIC INSTRUMENTS.

AT the present day most surgeons will agree that any instrument which is to be employed in a surgical operation should be capable of being boiled and this is as necessary for pocket instruments as for those used in the more important operations. The figures illustrate a very neat arrangement for a portable knife which is constructed entirely of metal and may therefore be boiled. The handle encloses the blade (Fig. 1) and when the handle is opened the blade is placed

FIG. 1.

in position and then the handle fixes it firmly by an ingenious spring so that there is no fear of its closing unexpectedly. The blade is interchangeable with three others which are kept in a metal case (Fig. 2) and these blades include all the

FIG. 2.



forms which are likely to be required. The knives are made by J. Albert Schmidt, Solingen, whose agent in London is Mr. W. S. Oswell, 12, Lime-street, London, E.C.

A MIDWIFERY SURGICAL CLAMP.

IN the old method of dividing the umbilical cord the accoucheur after tying the first thread pressed the blood in the vessels some distance along the cord which was then held by an assistant until the second thread was tied, the object being to avoid the escape of blood on to the bed-clothes. This part of the accoucheur's work may, however, be accomplished more conveniently by making use of a clamp which I have designed and which is represented open in Fig. 1 and closed in Fig. 2, for it by the same move-

FIG. 1.

FIG. 2.

ment cuts the cord and compresses both the cut ends, thereby supplying the place of scissors and ligatures. The clamp having been opened, the cord when it has ceased to pulsate is placed between the blades, resting on the plain side; the knifed edge is then pressed firmly down and retained in position by the catch. The clamp is removed a few seconds after application, and if the accoucheur is afraid of hæmorrhage (although French authorities say there is no need for ligatures) he can tie the cord on either side of the clamp before releasing the catch. The instrument is neat and easy to use. Messrs. Arnold and Sons, London, are the makers.

EDWARD MAGENNIS, M.D. R.U.I.
Lurgan, Ireland.

PLYMOUTH ASYLUM.—At a meeting of the Plymouth Town Council held on May 8th the report for 1898 of the Visiting Committee of the Plymouth Borough Asylum at Blackadown was presented. This stated that the result of the recent controversy between the guardians and the council with regard to the weekly rate charged for pauper patients from Plymouth was that the council in future would pay £1000 a year extra and the guardians £1000 per annum less than formerly. The weekly maintenance rate of patients had been reduced from 12*s.* 1*d.* to 11*s.* 2*d.*

DIPHTHERIA IN LONDON.—Alike as regards amount, mortality, and relative fatality, diphtheria in London in the four weeks ended on April 22nd showed great decline as compared with the like period ended on March 25th. In the earlier period the total of notified cases of the disease was 791, or 198 per week, whilst in the April period the total was only 645, and the weekly average 161 cases. In both all sanitary districts save two were invaded, but whereas in March there were four districts with upwards of 50 notified cases each and 240 in all there was only one such district in April, while other five areas had only a total of eight cases in all. The weekly average of 46 deaths from diphtheria in the March period, amounting to 166, gave place to an average of 28 in April and a total of 114 deaths. The records of the several weeks in this later period showed 31 deaths (or six below the corrected decennial average), 34 (equal to the average), 20 (being 16 below the average), and 29 (or six below the average). Had the corrected averages for the corresponding four weeks of 1889–98 been maintained the actual 114 deaths would have been 142. The case mortality yielded was 17·7 per cent. in place of the 20·0 per cent. of the March period. In the outer circle also there was a falling off in the number of deaths from diphtheria, the 58 of the earlier period, of which 23 were in West Ham registration district, being replaced by 44, of which 19 were in that particular area.

THE LANCET.

LONDON: SATURDAY, MAY 20, 1899.

THE success of the Hospital Saturday Fund in Birmingham is a matter on which its promoters may be heartily congratulated. Last year they raised the handsome sum of £17,662. In addition to £10,000 as a donation to the medical charities they devoted £5000 to the support of convalescent homes, £100 to the District Nursing Society, and £250 to the provision of surgical appliances. These are very substantial contributions which are creditable to the working classes of Birmingham, but the sum is not one whit greater than should be raised for the purpose by the working men of one of the most prosperous and thriving provincial towns in England with a population of nearly half a million. The benefits of the medical charities are monopolised almost entirely by the working classes and it is but fit that they should realise their obligations and give generously to institutions which provide sick-beds and the best skill and nursing for the unfortunate among their number or their families when overtaken by exceptional disease or accident. The sum contributed to the hospitals of Birmingham by the Hospital Saturday Fund is probably not a fourth of that which is required to carry them on as charitable institutions, but the whole sum raised is not far short of that contributed to the Hospital Saturday Fund of London with its enormous population, showing how much more complete is the organisation in Birmingham than it is in the metropolis.

But while we have always been ready to recognise the merits of the working classes of Birmingham and of those who lead them we have occasionally found it necessary to remind them that they were dealing with charities under public management, founded and supported by the benevolent of many generations and created for limited and specific purposes. We have noticed with regret a disposition to try experiments with these institutions and to turn them to purposes for which they were never intended. Not long ago there was an attempt to ignore their essentially charitable character and to insist that the working classes by their contributions acquired a sort of right to their benefits in respect of the ordinary ailments and diseases of life—in other words, to insist that by their contributions they were paying for that ordinary medical attendance which has always been a matter for every family to arrange and pay for privately, either by engaging the services of a general practitioner practising privately or as members of a friendly society, club, or the like. The fallacy that charitable medical institutions are to be used for ordinary disease is one which the working man would quickly perceive if the same notion were held by the rich man who contributes to hospitals. What would the working man think of a well-to-do person contributing five guineas a year and thereby claiming to have himself, his family, and his servants attended by the hospital staff and when necessary received into the beds of the hospital?

But the latest heresy of the working classes of Birmingham has reference to medical practice outside hospitals altogether. It is a proposal to establish an institute where a consultant's opinion is to be obtained for the modest fee of 10*s.* 6*d.* The scheme contemplates the hiring of consulting-rooms and the engagement of consultants. It is proposed to begin tentatively with two—a "physician" and a "surgeon," each to have a salary of £500 a year. The experiment is expected "to yield a considerable profit," for in all these schemes for exploiting the medical profession, and especially the younger and more needy members of it, there is a business element to be detected. But provision is made for the experiment proving to be a financial failure. In that case two-thirds of the loss have to be met by the Hospital Saturday Fund and one-third by Mr. ARTHUR CHAMBERLAIN who has the credit—rather would we say the responsibility—of this most questionable innovation. The chance of loss, however, is regarded by Mr. CHAMBERLAIN and his colleagues as very remote, "considering the present condition of the medical profession and the hospitals in the city." Exactly so. All sorts of experiments are tried with "the hospitals in the city"; enormous numbers are treated with very inadequate inquiry into their fitness for such relief and the medical profession is driven to all sorts of devices to compete with the abused charities. Now advantage is to be taken of this state of matters to degrade the system of consultation. We regret that the working classes of Birmingham should be thus misled by a gentleman who must know that "consultants" are not ready-made and that the scheme is calculated to tempt two—no doubt promising—young members of the profession to place themselves in a very ungracious and undignified position. They will enter into competition not so much with consultants as with general practitioners of all ranks. They will be put forward—practically they will be advertised very loudly—as superior persons who have been persuaded to take an inferior fee, and the profits which they are expected to make will be used, not for their benefit or for the benefit of the profession, but for the glorification of the Birmingham Hospital Saturday Fund and to enable its members to try other experiments with the profession and its charities.

Dr. SAUNDBY, both at the meeting of constituents of the Hospital Saturday Fund and in an able letter to the *Birmingham Daily Post*, has entered a very proper protest against this scheme. Surely the least its promoters should have done before committing themselves to it by a large majority was to have taken the medical profession into consideration. Consultation is a very worthless thing unless it represents experience and reputation and the confidence of the ordinary medical attendant. We see no case at all for creating such a nondescript innovation as this consulting institute to be officered presumably by two young men at a fixed salary. Mr. ARTHUR CHAMBERLAIN, although doubtless he has no such intention, is doing his best to lower the status of the whole medical profession by such schemes and he may be assured of this, that in so treating the profession he is doing an injury to the tone and standard of medical practice which will in turn injure the working classes more than his pet scheme will benefit them. When real emergencies arise the deserving poor can

always obtain at hospitals the services of consultants, and it is obvious that anything which estranges the medical profession as a whole is not in the long run likely to work well for any class of the community. We trust that this fantastic scheme will be abandoned. At any rate, the medical profession should meet in force and utter a dignified protest against such interference with its duties.

THE Leicester guardians have determined to refrain from appointing a vaccination officer to carry out the new Act and they have made their refusal the occasion of preparing and circulating a lengthy memorial on vaccination in Leicester addressed to the Local Government Board. The document is a careful and elaborate attempt to obscure the question at issue by ignoring important facts and assuming the identity of things which are essentially different. In the end, indeed, it would almost seem as if the guardians had succeeded in thoroughly muddling their own minds by their own sophistications, for they conclude their memorial by expressing regret that the Vaccination Commission's "unanimous recommendation to abolish compulsion was not adopted and embodied in the Act of 1898." Needless to say everyone excepting the Leicester guardians knows that rightly or wrongly compulsory vaccination has been abolished by the conscience clause, and Leicester's power of self-deception as regards all that relates to this subject could receive no better illustration than is to be found in the fact that their elected representatives are now in the ridiculous position of publicly bewailing that this abolition has not taken place. They quote from Mr. BALFOUR the view "that where a parent has clearly proved that he has an honest, decided, and strong objection in the interests of his own child to vaccination it is useless to attempt to coerce him," but from beginning to end of the document they argue as if prosecutions under the Act of 1898 were not to be distinguished in the important matter of the conscience clause, from prosecutions under the previous Vaccination Acts. The obfuscation of the guardians reaches its acme in their quotation from Lord SALISBURY'S speech in the Upper House when, in advocacy of the conscience clause, he said to the Lords: "You will be able to induce local authorities to work with you instead of against you." That of all the local authorities in this country the Leicester body should be the one to quote these words in this connexion indicates nothing short of a sublimity either of impudence or stupidity. The Vaccination Commission did have its recommendation given effect to, Lord SALISBURY did persuade the Lords to yield, the conscience clause was granted, and now it is the Leicester local authority which refuses "to work with instead of against" the Government, and which will not fulfil its statutory duty of appointing a vaccination officer even though compulsory vaccination is abolished by means of the conscience clause.

It is hardly necessary to point out that prosecutions under the Act of 1898 will be instituted only against persons who have refused to accept the relief offered by Section 2, and that in effect the prosecution will be not for neglect of vaccination but for neglect to follow the course laid down by Parliament for avoidance of penalties by those who object to vaccination. It will be recollected that the Leicester anti-vaccinationists have from the first made a boast of their determination to defy Parliament even in the matter of the conscience clause. They held a public meeting in the Market Place at which their leaders urged them to this course and, according to the statistics of the guardians, of 80,000 juveniles to whom the new law would apply conscientious objection has been registered with regard to only 10,000. And Leicester having thus thrown down the gauntlet to Government and Parliament now begs of them not to take it up. "Why," say the memorialists, "why disturb the existing peaceful state of things?" for "numerous prosecutions would undoubtedly excite widespread sympathy and indignation, thus bringing the administration of the law into contempt"—as if the extensive liability to prosecution had not been purposely created, and as if the yielding of the Government would not at once be triumphantly hailed by the guardians as evidence of the success of their efforts to bring the administration of the law into the contempt which they pretend to deprecate.

There can be no sympathy with the Leicester guardians and their extraordinary manifesto and there can be no doubt that the Government will persevere in its determination to have a vaccination officer appointed. Not nearly all of the 70,000 uncertified children belong to parents possessed of any deep-rooted objection to vaccination and when mere indifference ceases to have its full effect—as it will cease after the appointment of an officer—there may be considerable reduction in the numbers independently of any prosecutions. It is not inconceivable, indeed, that the fear of this result has something to do with the anxiety of the guardians not to appoint an officer. But in Leicester more perhaps than anywhere else in the kingdom anti-vaccination has become a kind of fashion, and many of the inhabitants seem to be imbued with a foolish pride in the mythical Leicester method of controlling small-pox. This being so the Government will very likely find themselves confronted in the end with a serious difficulty. If notwithstanding the work of the vaccination officer many thousands of children, the accumulation of past arrears, remain unvaccinated—the time allowed for their certification under the conscience clause having expired before the end of 1898—will the Local Government Board undertake the task of wholesale prosecution which will be necessary if the new Act is to be maintained in full operation? If it is impossible to sympathise with the Leicester guardians in their alleged difficulty it will not be easy to have much sympathy with the Government in theirs, for in both cases the troubles will in great measure have been created by those who suffer from them. Had last year's Act been reasonably inclusive and complete, had it contained in particular a provision for systematic vaccination or revaccination of school-children, then it might have been possible to deal with the arrears in yearly instalments as the age for revaccination came round. Obviously under the present Act these arrears constitute a much greater difficulty than does the routine duty of attending to infants unvaccinated and unregistered at four months of age. Even yet the Government could find an eleventh-hour salvation by passing a Revaccination Bill, but if it

persists in ignoring alike its own public promises and the best course open to it to get over a serious difficulty in the administration of the half-measure of last year, then, we repeat, it will deserve little more sympathy than do the Leicester guardians.

IN THE LANCET of April 22nd we gave an epitome of what is known concerning the incidence of fatal tuberculosis on the population of this country, distinguishing its various forms and showing the mortality for which it has been responsible during successive periods of the last half-century. Next in importance to tuberculosis in the list of constitutional diseases stands cancer which, on account of its rapidly increasing fatality in recent years, has awakened an amount of general interest scarcely less than that which rightly attaches to the still excessive prevalence of tuberculous disease. The national records tell us that for some years past cancer has contributed more largely to the death-roll than any other single disease with the exception of bronchitis, pulmonary consumption, and pneumonia. We have therefore determined to deal in the present article with the incidence of malignant disease on the population of England and Wales, treating the subject as nearly as possible on similar lines to those followed in the case of tuberculosis, our object being to furnish the readers of THE LANCET with a complete summary of the history of this malady, derived, as in the former case, from the National Registry at Somerset House.

In the subjoined table will be found the mean annual rate of cancer mortality at certain ages in both sexes for each of the four decennia from 1851 to 1890 and also the mean rate for the seven years ending with 1897, which is the latest year for which abstracts are available.

Cancer (Malignant Disease) in England and Wales: Mortality at Specified Ages in several Periods from 1851 to 1897.

Ages.	Deaths in 1,000,000 living.				
	1851-60.	1861-70.	1871-80.	1881-90.	1891-97.
Males.					
All ages	195	242	312	430	571
Under 5 years	21	13	13	21	32
5 to 10 ,, ...	10	8	7	11	18
10 to 15 ,, ...	8	7	8	12	18
15 to 20 ,, ...	16	18	16	23	32
20 to 25 ,, ...	27	26	27	37	49
25 to 35 ,, ...	63	60	70	79	98
35 to 45 ,, ...	174	204	239	297	386
45 to 55 ,, ...	422	536	705	998	1283
55 to 65 ,, ...	931	1201	1588	2299	3060
65 to 75 ,, ...	1504	1862	2569	3742	4977
Above 75 ,, ...	1749	2258	2985	3914	5432
Females.					
All ages	434	519	617	739	882
Under 5 years	23	13	12	19	26
5 to 10 ,, ...	9	7	7	9	12
10 to 15 ,, ...	9	7	7	10	12
15 to 20 ,, ...	18	16	14	18	25
20 to 25 ,, ...	30	32	26	33	39
25 to 35 ,, ...	141	161	173	172	180
35 to 45 ,, ...	502	669	790	852	918
45 to 55 ,, ...	1278	1530	1760	2042	2328
55 to 65 ,, ...	1853	2291	2753	3368	4045
65 to 75 ,, ...	2351	2791	3512	4506	5556
Above 75 ,, ...	2341	2786	3513	4578	6135

The earliest accessible records of mortality are those relating to the 10 years 1851-60. In that decade cancer was fatal, on the average, to 317 persons annually out of each 1,000,000 of the population. The table shows that during this period cancer claimed more than twice as many victims among females as it did among males, and ever since that period the disease has shown a similar tendency although the contrast has been less strongly marked. It will therefore be expedient to consider separately the mortality of the two sexes. Taking the five groups of years consecutively we note that cancer mortality among males was equal to 195 per 1,000,000 living in the first period, 242 in the second, 312 in the third, 430 in the fourth, and 571 in the last period. Among females the rates per 1,000,000 were 434, 519, 617, 739, and 882 respectively; thus the mortality in both sexes showed a marked and progressive increase from period to period. If, therefore, the correctness of the rates be assumed without question, it would appear that within rather less than half a century the fatality of malignant disease in both sexes has at least doubled. There are good grounds, however, for the belief that the increase shown by the tables is not wholly real. Dr. OGLE, for example, writing in 1885 on this subject puts the case thus: "There can be very little doubt that a considerable part in this apparent increase is simply due to improved diagnosis and more careful statement of cause on the part of medical men. Year by year the number of deaths ascribed to tumour, abdominal disease, or other similarly imperfectly stated causes has been undergoing diminution, and there has been of course a corresponding addition to the mortality under the more definite headings. Moreover, the increase of mortality from cancer has been much greater among males than among females, the rate for males having risen 62 per cent. in 20 years, while the rate for females has only risen 43 per cent. Now, were the rise not merely apparent but real ..... there would seem no reason why the male sex should have suffered more than the female; whereas the difference is readily intelligible on the hypothesis that the rise has been in great measure only apparent and due to better diagnosis. For the cancerous affections of males are in much larger proportion internal or inaccessible than are those of females and consequently are more difficult of recognition, so that any improvement in medical diagnosis would add more to the male than to the female reckoning." Again, Dr. TATHAM, writing 10 years later—namely, in 1895—not only confirms the opinion of his predecessor but adduces fresh evidence to show that the increase referred to has been even more rapid since 1885 than in previous years. He has, however, drawn attention to the fact that although in recent years the recorded rates have been corrected in an opposite direction, as we shall presently show, nevertheless the increase still continues unchecked. Most of our readers will remember that ever since the year 1887 a system of inquiry has been in vogue at Somerset House, of which the object is to secure greater accuracy in the classification of such deaths as are inaccurately described in the medical certificates. The answers to these inquiries have been so useful as to lead to the transference of many hundreds of ill-defined deaths to one or other of the sections under the heading "Malignant Disease" and to increase proportionately the recorded mortality from this malady. Compensation for this change is, of course, required and this has been duly

carried out; nevertheless, after making every possible allowance it would appear to be unsafe to compute the cancer mortality in the seven years 1891–97 at less than 551 per 1,000,000 for males and 863 per 1,000,000 for females. These rates correspond to an average annual increase of 2·9 per cent. and 1·8 per cent. respectively as compared with the mortality in 1861–70. Our table shows that during the first 25 years of life the mortality from malignant disease is insignificant. It is in the period of maturity, and especially in that of decline, that cancer claims the greater number of its victims. The table further shows that the rate of increase in recent as compared with earlier years has been by no means uniform at the several stages of life. Among men aged from 35 to 45 years, for example, the rate of increase has been equal to 89 per cent., whilst among females at the same age the increase has not exceeded 37 per cent. At the next succeeding age group—namely, that from 45 to 55 years—the rate of increase has been 139 and 52 per cent. respectively, and at the age from 65 to 75 years it has been 167 and 99 per cent. At ages above 75 years, however, the difference in the rate of increase has not exceeded 21 per cent.

In the last report of the Registrar-General we are glad to notice a table which gives the means of estimating the relative frequency with which malignant disease attacks various parts or organs of the body. Malignant disease in the aggregate is known to be more prevalent among women than among men, but it appears that the excess is largely due to the fact that the female generative and mammary organs are exceptionally liable to become affected. If the deaths from disease of the ovaries, uterus, and breast be subtracted from the total cancer mortality the remaining deaths will give a mortality for females considerably lower than the male rate. In the year 1897, for example, the male deaths from cancer, less the deaths due to disease of the generative and mammary organs, gave a death-rate equal to 625 per 1,000,000 living, whilst the female death-rate similarly calculated did not exceed 551 per 1,000,000. In addition to cancer of these organs malignant affections of the liver, peritoneum, intestine, kidney, and pelvis are exceptionally frequent among women, but men are more liable than women to cancerous disease of the larynx, trachea, and lungs, and likewise of the mouth, tongue, throat, and œsophagus, as well as of the jaw, face, lip, and neck, and of the bladder and urethra. Of the 24,443 deaths referred to malignant disease during the year 1897 scirrhus accounted for 751, epithelioma for 1268, and sarcoma for 1485, while the remaining deaths were returned as from cancer or malignant disease simply.

It is evident that the mortality in a given place from cancer is largely dependent on the proportion of persons under and over middle age in the population, since the mortality from this disease is mainly confined to persons over 35 years of age. The mean death-rate from cancer during the last completed decennium per million persons living at all ages ranged from 440 in Durham, 475 in Staffordshire, 477 in Lancashire, 482 in Derbyshire and in Monmouthshire, and 501 in South Wales to 716 in Norfolk, 727 in Sussex, 736 in North Wales, 740 in Devonshire, 789 in Cambridgeshire, and 916 in Huntingdonshire, the average rate for the whole of England and Wales being 589 per 1,000,000.

Annotations.

"Ne quid nimis."

IS THERE A RELATION BETWEEN THE INCREASE OF TYPHOID FEVER IN LONDON AND THE INCREASE OF ORGANIC MATTER IN THE WATER-SUPPLY?

THIS question, which has been raised recently by Dr. Corfield, deserves very serious attention. In a special report to the parish of St. George, Hanover-square, he some time ago pointed out "that the exceptional prevalence of enteric fever in London during November, December, and January, which are not the months for the seasonal prevalence of this disease, occurs in the very months in which London is supplied with water which contains 'an excess of organic matter.'" Dr. Corfield bases his contention on the statement contained in the report of Sir William Crookes and Professor Dewar "that all river-derived supplies have a period of minimum and maximum amount of organic matter during the course of the year. The maximum generally occurs in Thames water during the winter months and the minimum during the summer." This maximum is what Sir William Crookes and Professor Dewar describe as "an excess of organic matter." To this these experts attach no significance, for "it is common knowledge that if any such disease as enteric fever originates through a contaminated water-supply it is not the *amount* of organic matter but its *nature* that is the dangerous factor and this must be the presence of the specific living germ characteristic of the disease. No one has alleged that Thames water which has undergone storage and filtration similar to that of the London supply contains any such pathogenic organisms." Against this Dr. Corfield quotes the experience of Sir Edward Frankland who has found an excessive number of organisms again and again in filtered Thames water, while Dr. Parkes and Dr. S. Rideal have more recently found the bacillus coli communis passing in various numbers through the filter beds of the Chelsea Waterworks Company. As to the bacillus of enteric fever it has rarely, Dr. Corfield points out, if ever been found in any water-supply, and on the occasion of the Maidstone epidemic Dr. Washbourn said in his report that no importance can be attached to the failure to discover the typhoid bacillus in water suspected of being the cause of an epidemic of typhoid fever. The organisms which were found by Dr. Sims Woodhead and Dr. Washbourn in the Maidstone water were of similar kinds to those found by Dr. Parkes and Dr. Rideal in the waters supplied to Chelsea. It seems to us that Dr. Corfield has raised a very serious question, and his contention on the face of it appears to be supported by what he regards as a remarkable coincidence, that he was able last month to report that the number of cases of typhoid fever in London had very considerably diminished and the death-rate from it gone down to its normal amount as soon as the water-supply had ceased to show the signs of contamination to which he has drawn attention.

THE HOME FOR THE UNIVERSITY OF LONDON.

IT has for some time been quite understood that the Government intended to take over the present premises of the University of London to utilise them for its own purposes and that the reconstituted University would have to

find another home. The present premises are much too cramped and confined and rooms have had to be sought elsewhere for mere examination purposes alone. University College has offered the use of its buildings and site in Gower-street, but the acceptance of this offer, even if the site and buildings were suitable, which is very much questioned, would have but little advantage and would much too closely identify one institution with the future University. King's College could not under its lease from the Crown offer its premises, although it is known that its Council is most anxious to facilitate any new arrangements. The only alternatives, therefore, before the University are a new and specially adapted building in a central position to be built by the Government, or its establishment at the Imperial Institute. It would appear from the speech of Lord James of Hereford on accepting the chairmanship of the Imperial Institute in succession to the late Lord Herschell that the question has been practically, if not definitely, settled. The Government will take over the Imperial Institute, as a preliminary step, in the name of the Crown. The University will be offered the east wing of the premises as tenants under the Crown and be quite independent of the Imperial Institute financially and otherwise. Considering that the present tenure of the building in Burlington-gardens is under the Crown and subject to very similar conditions there can be but little doubt as to the probable future. Lord Kimberley, Sir Henry Roscoe, and Sir Joshua Fitch are negotiating and are well aware that the Crown has every control over the existing institution. By the way, those interested in the welfare of London University must not think that the labours of its reconstitution are completed with the acquisition of a new home. A suitable site for central offices, good rooms for examination purposes, with proper laboratories for practical tests, especially in science, are very important; but the teaching university of London must not rest content with the provision of these facilities for education, leaving every and sundry school or college to go on the old lines depending on its own resources. The medical schools are very much more interested in questions affecting their status in the University and the aid which will be afforded to them by the University than in any secondary consideration as to where the University is for official purposes to be located.

HASHISH-SMOKING IN EGYPT.

DR. WARNOCK, who has been in charge of Egypt's solitary lunatic asylum for some years, regards the smoking of hashish as one of the most fertile causes of insanity in the country. In 1898 upwards of a third of his male patients were victims of the hashish habit, but apparently the same individuals were admitted more than once. Hashish is not produced anywhere in the Nile valley, the entire amount consumed finding its way into Egypt from Greece. Nominally the substance has long been contraband, but Lord Cromer says that prior to 1898 no very strenuous attempts were made to put the existing laws into force. The use of hashish either by smoking or in the form of a sweetmeat must be widespread among the Egyptians, for last year no less than 12,000 kilogrammes of it were seized by the preventive services and presumably only a fraction of the total supply was captured. At 80 grammes per head, which amount is said to "meet the requirements of a confirmed smoker for a week," the above quantity would suffice for nearly 3000 habitual consumers during a twelvemonth. The coastguard agents are now very alert but they are comparatively few in number and to supervise effectively the frontier, which consists largely of sandy desert, is very difficult. The extreme portability of hashish renders it an easy article to smuggle and the greatest ingenuity is exhibited in concealing it. Amongst other unlikely hiding-places the narcotic extract has been discovered in the hollow frames of iron bedsteads, inside specially prepared grindstones, and even in holes bored longitudinally through innocent-looking cask-staves. In the Piræus hashish costs about 2*s.* 6*d.* per pound, but owing to the "expenses of possible bribes and transport" the Egyptian retailers have to pay at least three times that sum. Last year Lord Cromer was of opinion that the best way of dealing with the hashish question was to admit the substance as a taxable commodity, but he is now in favour of partial prevention. In spite of the recent extensive seizures he does not believe that total exclusion will ever be practicable. "It is more than doubtful," he says, "whether the use of the drug can ever be entirely suppressed by preventive measures. ..... The efforts of the coastguard to check the introduction and of the police to detect the presence of hashish in the interior may keep the price of the drug at a comparatively high figure and thus increase the difficulties of its acquisition by the population. More than this is scarcely to be expected." In this connexion it may perhaps be permissible to indicate a possible danger. Experience shows that in all communities there are people incurably addicted to narcotism in one form or another who will go to any lengths to procure the means of ministering to their appetite. Were hashish to be totally suppressed in Egypt the *hashash*, or habitual consumer, would inevitably seek far and near for a substitute, in alcohol perhaps or in some other narcotic of a still more deleterious character. Of two evils the less should be chosen, but then the difficulty often is to determine which that is. The abuse of hashish undoubtedly does cause insanity, although apparently the proportion of consumers whose mental equilibrium becomes disturbed is not a very large one. In 1898 the number of hashish patients at Abbasiyeh, where the whole of the pronounced lunatics in Egypt are interned, was only 133, or about 0·01 per 1000 of the total population. It would be well for England if the proportion of dipsomaniacs under restraint were no greater. In England the ratio of insane to population is 3·3 per 1000, but in Egypt it is only about 0·05 per 1000. Since hashish cannot be suppressed perhaps the wisest course would be to impose a heavy tax upon it while at the same time insisting on the maintenance of a fixed standard of purity. Badly prepared bhang or hashish is far more injurious than the properly elaborated extract, just as inferior whisky is more injurious than is a carefully matured spirit.

THE BACILLUS OF INFLUENZA.

IN leading articles on Jan. 14th and March 18th we referred to the clinical value of the bacillus of influenza. The diagnostic worth has not yet been fully investigated and, like the bacteriological corroboration of the diagnosis of diphtheria, is still doubted by some practitioners. In several instances the bacillus of diphtheria and the bacillus of influenza have been found at the same time in the throats of patients, and according to the report of the Department of Health of Chicago it would seem that a bacteriological diagnosis in influenza is of special advantage in detecting this disease when complicating other diseases. The bacilli had been found present not only in cases of diphtheria but also in cases of scarlet fever, measles, and pneumonia. In all these conditions it was noticed that there were clinical manifestations which were difficult to interpret until the microscopic examination was made. These "mixed infections" require further elucidation. Referring once more to the above-mentioned reports we find the following: "In the diagnosis of suspected diphtheria some interesting observations were made relative to obscure clinical symptoms of influenza. In cases which appeared at the onset to be diphtheria the presence of the Canon-Pfeiffer bacillus was demonstrated and the subsequent course of the disease confirmed the microscopic diagnosis of

influenza." The report further states that in many of these cases the throat symptoms were so marked—redness and swelling of the tonsils and a well-developed membrane—that a diagnosis of diphtheria would undoubtedly have been made, yet influenza bacilli were often found in these cases in almost pure culture. Cases with little throat disturbance but with rise of temperature and general depression were, on the other hand, found to be mild cases of diphtheria, although the clinical symptoms pointed strongly to influenza. It has been occasionally observed that when influenza was present in a household the eyes of some members of the family became acutely inflamed, accompanied by severe pain, swelling, and redness of the conjunctiva, with a profuse discharge of pus. Cultures were made from the discharges and the influenza organism was found to be present in large numbers. Since the publication of these reports we are informed that the Canon-Pfeiffer bacillus has been identified in the bronchial mucus of a number of patients presenting the characteristic symptoms of mumps, especially as to glandular swelling, pain and stiffness of the sterno-cleido-mastoid muscle, and rise of temperature. These symptoms have, however, not usually lasted more than three or four days, the swelling and soreness then subsiding and the temperature becoming normal. Coincidentally with this subsidence of the parotitic symptoms there has in some cases occurred a sharp intestinal disturbance with, in two instances, peritonitis and dysentery. The variety of conditions with which the Canon-Pfeiffer bacillus is found to be associated opens a large field for bacteriological investigation.

THE JUBILEE OF MR. LANGHAM, THE CITY CORONER.

WE venture to anticipate the jubilee of Mr. Samuel F. Langham in the work of the coronership which will be attained on June 6th. It was on that day of 1849 that he was appointed Deputy Coroner for Westminster. He resigned this duty when he was appointed Coroner for the City of London. He also acts as Coroner for Southwark and in the Duchy of Lancaster district, which comprises the parish of Clapham. The special correspondent of the *Daily Chronicle* has had an interview with Mr. Langham who is now 76 years of age. Not infrequently has he attended as many as 14 inquests in one day. This is a prodigious and not very pleasant work, but the coroner is bright and cheerful still. A man must indeed have a happy temperament who can be cheerful after 50 years of such work. Two very striking facts come out in the short account of the interview which should be studied in connexion with each other. The coroner's court is a gruesome school for the study of life and of the estimate which men put upon life. The special correspondent was evidently anxious to get the coroner's opinion as to the effect of the social and political changes of the last half century, the greatest of which, perhaps, is the tendency of the State to assume more and more responsibility for the individual. Mr. Langham was not to be drawn into a full answer to that big question, but he made one thing clear to the correspondent—in his opinion "people are growing more careless of their lives. They are getting reckless like the Parisians and do not hesitate about throwing themselves away." He went on to attribute this to the greater pressure and competition of life. Perhaps it is partly so, but it is worth while considering whether we are not somewhat impaired in *morale* if not in physique by so much State care. William Cobbett—whose son was an early friend of Mr. Langham—who was so fond of the French motto, "Vivre de peu," would have said so. He thought that the happiness of men consisted in acquiring not wealth but knowledge and a certain strong independence of spirit which needs little upon which to live and be happy. Be this as it may we should take note of the coroner's opinion and cultivate less dependence on the State. There is far less excuse for such dependence than there was in the early days, and life, with all its competition, is infinitely richer and more varied and labour is better rewarded. But the business on which we set out was to congratulate the City Coroner on his jubilee and in heartily so doing we may add that Mr. Langham was well acquainted with his brother coroner, the Founder of the THE LANCET, and is probably the only coroner now living who knew him personally.

A NEW CLASSIFICATION OF MENTAL DISEASES.

A SOUND and comprehensive classification of diseases is of the highest importance and in no department of medicine is this perhaps more needed than in the domain of mental diseases. In the last 20 years various schemes of classification have been propounded, among the more noteworthy being those of Magnan (France), Krafft-Ebing (Austria), Morselli (Italy), and the scheme of mental diseases adopted in the "Nomenclature of Diseases" of the Royal College of Physicians of London under Dr. Hack Tuke and Dr. Savage. In the *Journal of Mental Science* (April, 1899) Dr. Lloyd Andriezen, at the close of a lengthy contribution on the "Bases and Possibilities of a Scientific Psychology and Classification in Mental Disease," propounds a classification of the insanities which is stated to be "based upon fundamental facts of evolution, upon deep-seated affinities in connexion with pathological findings, and upon facts of both etiological and clinical import." This classification is said to be "a natural one and at the same time practically useful," and it is as follows. There are five main groups of insanity and the words used to designate them explain themselves, viz.:—

1. *Aphrenia.*—Arrests of cerebral (psychical) development, with absence or deficiency of evolution of personality. (*a*) Idiots of vegetative grade; helpless, wet and dirty, not educable. (*b*) Idiots of medium and higher grade (many microcephalic, cretinoid, epileptic, partially paralytic, or simple genetic idiots); slightly improvable and educable.

2. *Oligophrenia.*—Enfeeblements of cerebral (psychical) development, with a parallel enfeeblement in the evolution of personality. (*a*) Imbeciles of low grade; not educable. (*b*) Imbeciles of medium grade; partially educable and improvable. (*c*) Imbeciles of higher grade; partially educable and improvable; often with anti-social instincts. (*d*) Feeble-minded children; partially educable and improvable; often with anti-social instincts.

3. *Paraphrenia.*—Anomalies and perversions of cerebral (psychical) development, with corresponding irregularities and perversions in the evolution of personality. (*a*) *Paraphrenia mitis.* Disharmonies of psychical development with an unbalanced disposition of the ego; the so-called borderland cases between sanity and insanity—e.g., eccentrics, cranks, mattoids, some types of revolutionists, mystics, &c. (*b*) *Paraphrenia gravis.* Grave anomalies and perversions of mind and personality. This includes eight groups—viz.: (1) with mental obsessions and irresistible impulses (e.g., agoraphobia, folie du doute, dipsomania, kleptomania, &c.); (2) with delusions of rudimentary type (e.g., psychopaths of the litigious, erotic and jealous, mystico-religious and other types); (3) with predominant perversion of moral and sexual nature (e.g., moral insanity, uranism, masochism, saidism, &c.); (4) with predominant criminal instincts (e.g., congenital criminals of the active and of the neurasthenic types); (5) with hallucinations and systematised delusions and transformation of personality (e.g., various types of "paranoia"); (6) with cyclic or periodic attacks (e.g., circular insanity and folie à double forme); (7) associated with and modified by grave neuroses (e.g., epileptic, hysteric, choreic, hypochondriacal, and neurasthenic types); and (8) associated with the evolution of puberty and adolescence (e.g., hebephrenia).

4. *Phrenopathia.*—Morbid conditions or derangements occurring in brains of nearly full development and of apparent previous health, with corresponding morbid alteration of the personality. This includes eight types—viz.:

(1) vesanic type (e.g., melancholia, mania, stupor, acute mental confusion, and asthenic confusion); (2) toxic type (e.g., alcoholic delirium tremens, mania à potu, chronic alcoholic insanity, lead encephalopathy, morphinism, cocainism, ergotism, and pellagra); (3) febrile micro-parasitic type (e.g., some puerperal insanities, delirium acutum, and the grave delirium of influenza, scarlet fever, acute cerebral meningitis, tuberculous meningitis, &c.); (4) diathetic group (e.g., myxœdematous, goitrous, acromegalic and possibly diabetic insanity, post-syphilitic pseudo-paresis, &c.); (5) chronic meningo-encephalitis of progressive type (e.g., general paralysis of the insane); (6) involutional type (e.g., climacteric insanity and the chronic cerebral atrophy and senile insanity of middle and old age); (7) traumatic type (e.g., the "cérébraux" of Lasegue); and (8) neoplastic and thrombotic type (e.g., of cerebral softenings, gliomata and other neoplasms, &c.).

5. *Lipophrenia*.—Terminal conditions of mental dissolution secondary to previous insanities. These comprise many and varied types and groups with different antecedents but with one terminus and goal to which they all tend.

The basis of the above classification is the principle that abnormalities (morbid changes and alterations) may and do occur "at all stages in the evolution of the brain and of its function, from the fœtal (vegetative, somnolescent) to the sexually mature (adolescent) stage," with corresponding variations in the evolution of personality, of bodily conformation and appearance, and of conduct and capacity for intellectual, social, and ethical life. Thus studied it is found that the insanities fall into five groups which assume a serial and tree-like arrangement. At the lower end of the series, where hereditary fœtal and intrinsic vice of organisation preponderates, we find Groups (1) and (2)—viz., the profound arrests (*aphrenia*, idiocy) and enfeeblements (*oligophrenia*, imbecility) of cerebro-psychical development. At the other end of the scale are grouped the morbid conditions which affect brains of nearly full cerebro-psychical development and of apparent previous health. These comprise the various types and classes of the *phrenopathies*, Group (4). Between these extremes comes a "degenerative" group with anomalies of evolution in the sense alluded to and classified under *paraphrenia*—i.e., Group (3). Fifth and last comes the group which includes the wrecks and remnants of previous mental disease, "chronic derelicts after storms, deprived of their mental equipments and reduced to low grades and levels of mental life—a highly motley, artificial, and lumber-room group really—the chronic dements." These constitute the terminal Group (5) which for uniformity of nomenclature is termed *lipophrenia*. It will be seen from the details given above that while some of the groups are sharply marked out others constitute grades and types having close affinities with allied groups and that some types must of necessity overlap or blend with others, as indeed is found in practice to be the case; and, finally, it must be borne in mind that occasionally mixed types may occur—i.e., in which two or more mental morbid conditions may co-exist as combined morbid conditions exist in other parts or organs of the body.

THE DANGERS OF CHEMICAL TRADES.

THE locked-up energy in certain chemicals must always be a possible source of danger to the workers concerned in their elaboration. The disaster at St. Helens, Lancashire, on May 12th was essentially one arising from chemical manufacture, though the cause of the frightful explosion which occurred and by which several persons met a ghastly death is not easy to account for. All that can be said is that the explosion had its origin in the tank where chlorate of potash was being crystallised on a large scale. The tank was observed to be on fire which rapidly extended to the storehouse. Chlorate of potash is, of course, not *per se* combustible, but it is a powerful aid to combustion under some circumstances by reason of the readiness with which it parts with its oxygen. Alone, the greatest possible mass of chlorate of potash would be quite harmless. What, then, was the combustible matter in the chlorate crystallising house which subsequently led to a disastrous explosion? If by any chance sulphuric acid had reached the shed the highly explosive compound chlorine peroxide would have been evolved, but there is no evidence on this point. The force of the explosion liberated some quarter of a million cubic feet of coal gas in the neighbouring gasholders which caught fire and burnt with considerable energy. At the same time tanks containing vitriol were destroyed and tons of this corrosive fluid streamed down the streets to the sewers. It is difficult, therefore, to calculate the extent of the mischief. Doubtless some light will be thrown on the disaster at the inquest which was adjourned on May 15th until May 30th.

COINCIDENCES IN HOSPITAL PRACTICE.

IN THE LANCET of May 13th we published an article by Dr. F. J. Smith, Mr. C. Mansell Moullin, and Dr. Arthur Keith, on two very rare forms of hernia which came under observation at the London Hospital within six weeks of each other. This week in our "Mirror of Hospital Practice" our readers will find an account by Mr. Frederic Eve and Mr. J. McCarthy, with pathological notes by Mr. H. L. Barnard, of two cases of filariasis which were admitted consecutively into the same bed in the same hospital (the London Hospital), and all medical men connected with hospitals know the strange frequency with which these coincidences occur, and probably every member of the staff of any large hospital will be able to recall similar occurrences both in the wards and in the out-patient rooms—two cases of actinomycosis admitted within a day of each other, two cases of plastic bronchitis coming to the out-patient room within the same week, &c. In short, the doctrines of chance seem to be regularly defied in hospital practice.

PLUMBISM MISTAKEN FOR APPENDICITIS AND OTHER ABDOMINAL CONDITIONS.

IN the *Journal of the American Medical Association* of April 15th Dr. J. P. Lord has published the following case. He was asked by the physician in attendance to see a case of appendicitis which had been admitted to hospital. The patient was a corpulent man, aged 28 years, with a fat, prominent abdomen. He was somnolent and delirious. There were constant vomiting, pain, and tenderness chiefly somewhat internal to McBurney's point, board-like rigidity of the whole abdomen, and general tympanites except over an area of the size of the palm just internal to the normal position of the appendix, where there was an indistinct doughy mass, dull on percussion. The patient had been constipated for five days and was in a serious condition and getting weaker. A previous attack had occurred. Laparotomy was therefore immediately performed by the McBurney incision. A long appendix free from adhesions was removed. It was healthy, though it was thickened, and contained two small fæcal concretions. The cæcum and presenting part of the ileum were distended and congested. Exploration revealed a mass of ileum and jejunum contracted to the diameter of the little finger. The cæcum was punctured by a trocar to allow gas to escape and a solution of Rochelle salts was injected. The patient began to improve after the bowels acted some hours later. Dr. Lord remarked that the only similar case which he had seen was in a man in whom plumbism was discovered after operation. He then was told that the patient whose case has been described had been a plumber. A well-marked blue line was found on the gums. The man had not worked at his trade for four years but he was a barman and the beer which he drew and also drank

passed through about 10 feet of leaden pipe. In the other case referred to by Dr. Lord, the diagnosis was obscure. The patient insisted that the contents of his bowels were arrested at the painful point—the splenic flexure of the colon—and demanded operation. All that was found was a constriction of the colon for about ten inches at the splenic flexure, the gut being reduced to the size of a finger. Plumbism was only discovered afterwards. Literature for the most part is mute on this intestinal condition. But Dr. Oliver states in Allbutt's "System of Medicine" that in animals he has found the small intestine irregularly contracted; at places so extreme was the spasm that the intestine felt like a piece of cord, its calibre being obliterated. In the *Journal of the American Medical Association* of Jan. 4th and 11th, 1896, Dr. J. B. Murphy also has described a case in which obstructive symptoms occurred in a subject of plumbism. The abdomen became greatly distended and cathartics and injections failed to relieve the constipation. The medical attendant believed that the condition differed materially from previous attacks of lead colic which the patient had had. An enlarged coil of intestine could be seen leading up to the right hypochondrial region. Laparotomy was performed. The enlarged coil was found to terminate in a contracted portion which resembled a solid cord three-eighths of an inch in diameter. At first it was believed to be an organic stricture. But after about 10 minutes' exposure to the air the spasm subsided and the intestine dilated. Recovery ensued.

THE NATIONAL ANTI-VIVISECTION SOCIETY.

THE annual public meeting of the National Anti-vivisection Society held at St. James's Hall is described as having been an enormous gathering and the speeches reported as having been delivered appear to have been worthy of the occasion. Without criticising them at length we note with interest the way in which each of the principal speakers approached the question from his personal or professional point of view and we venture to express a doubt whether in each case he would secure the undivided support of those addicted to the same pursuits or members of the same profession. For example, the Duke of Portland, with whose views of the national value of sport to England and Englishmen we agree, found himself led on to say, if he is correctly reported,[1] that "the object of the sportsman was to kill his quarry outright with as little pain as possible." The most enthusiastic sportsman would hardly contend that to run a fox into the next county (and perhaps have to leave it at large to die from exhaustion) is to kill it with as little pain as possible. Again, Lord Coleridge, Q.C., naturally used legal phrases and talked of "a very careful investigation of the facts" after which "he entirely disbelieved the statement that vivisection led to discoveries which tended to alleviate human suffering."[2] We confess that we should like to hear his lordship cross-examined by one of his learned friends in order to ascertain the precise evidence upon which he relied in his investigation and the precise quality of the judicial spirit in which he approached it. Canon Wilberforce, in his turn, "stood on the side of St. Paul and believed that the lives of animals were bound to our own by a mysterious solidarity which we were at present unable to realise ..... that in the great eternal world we (i.e., men and animals) should sink or swim together. ..... He would rather enter into a Nirvana with some dogs he had known than he would go into a narrow salvation with some so-called religionists." We can only leave Canon Wilberforce to theologians for criticism and comprehension. Mr. Stephen Coleridge at least adhered to the one rational standpoint open to him in declaring his view that to lengthen human life, if so doing implied the infliction of pain on animals, was unjustifiable and morally wrong. This is an opinion which everyone is entitled to hold if he or she will consistently act upon it in sickness as well as in health.

[1] Morning Post, May 10th, 1899. [2] Ibid.

THE FAMINE IN EAST AFRICA.

MISS CONSTANCE IRWIN last week sent to the *Times* extracts from a letter written by Miss Dunford of the University Mission to Central Africa giving a terrible account of the suffering of the people from plague and famine in the neighbourhood of Magila, Bonde, East Africa. The Foreign Office is making inquiries into the case and it is to be hoped that it will send some relief. Any who are disposed to help should send contributions to the secretary, Universities Mission to Central Africa, 9, Dartmouth-street, Westminster, S.W.

A NEW PETROLEUM BILL.

IT is stated that the Government's proposals in regard to amended legislation on the storage and sale of petroleum have at length been drafted in a Bill. It would appear that the regulations as to sale and storage which now apply to petroleum with a flash-point under 73° F. are to be maintained, but less stringent regulations of a similar character will in all probability be applied to petroleum having a flash-point of between 73° and 85°. The new measure would seem, therefore, to provide less stringent regulations for the storage of the oil but would place more control over the sale and use of oil of a definite flash-point.

THE PHYSIOLOGICAL ACTION OF CHOLINE AND NEURINE.

IN a paper recently (April 20th) read before the Royal Society Dr. F. W. Mott and Dr. W. D. Halliburton, the writers, gave the results of experiments made on anæsthetised animals which showed that the cerebro-spinal fluid removed sometimes after death and sometimes by lumbar puncture during life from cases of brain atrophy, and especially from patients suffering from general paralysis of the insane, caused when injected into the vessels a fall of arterial pressure with but a trifling effect on the respiration. Chemical examination of the fluid proved that it contained nucleo-proteid and choline and further experiments demonstrated that the effect on the circulation was due to the choline. The composition of choline given by Waller is $C_5H_{13}NO_2$. It is closely related to, but is not identical with, neurine. The crystals of the platinum double salt when crystallised from 15 per cent. alcohol are characteristic octahedra. There is every reason to believe that choline proceeds, like the nucleo-proteid, from the acute disintegration of brain tissue. The writers of the paper think that some, but not all, of the symptoms of general paralysis are due to auto-intoxication, nucleo-proteid and choline contained in the cerebro-spinal fluid being absorbed into the blood. In accordance with this they have found choline in the blood of general paralytic patients drawn by venesection. When from one to 10 cubic centimetres of solutions of choline containing two parts in 1000 were injected into the vessels a temporary fall of blood-pressure occurred, due in part to its action on the heart but chiefly to dilatation of the peripheral vessels of the intestinal area. This effect is attributable to the direct action of the base on the neuro-muscular mechanism of the blood-vessels themselves, for the reduction of pressure still continued to occur after removal of the central nervous influence by section of the spinal cord. Choline has little or no action on the nerve-trunks as tested by their electrical response to stimulation. In

regard to neurine, which has the formula $C_5H_{13}NO_2$. it was found that intravenous injection of from one to five cubic centimetres of a solution containing one part to 1000 caused a fall of arterial pressure followed by a marked rise and a subsequent fall to the normal level. The fall in the first instance is due to slowing and weakening of the heart's action with possibly a dilating influence on the peripheral vessels. The secondary rise in the blood-pressure is due to the constriction of the peripheral vessels, as shown by oncometers applied to the intestine, spleen, and kidney. The typical effects of neurine are still obvious after removal of the influence of the central nervous system by section of the spinal cord or of the splanchnics. After, however, the action of the peripheral ganglia has been cut off by the use of nicotine neurine produces only a fall of blood-pressure. It hence appears that the constriction of the vessels is due to the action of the drug on the ganglia. Section of the vagi had no influence on the results of injecting either choline or neurine and there was no evidence that either base acted directly on the cerebral vessels. Unlike choline, neurine is intensely toxic to nerve-trunks. The writers confirm the statement of Cervello that neurine acts like curare on the nerve endings of voluntary muscle and that the cessation of respiration is due to this action.

A FRENCH VIEW OF FRENCH ALCOHOLISM.

NOT the least of the many evils affecting France is her consumption of alcohol. It is known that the honest glass of light wine which used to meet the wants of the ordinary Frenchman is now supplemented with spirit in all forms and that France is first of all countries in the amount of alcohol which is consumed. The only hopeful thing about the fact is that Frenchmen are beginning to perceive it and its grave significance. The *Figaro* is devoting a series of papers to the discussion of the question and to a statement of the disastrous effects which are already apparent in the French population. The second of these papers is before us and no teetotal newspaper in England could give more convincing figures or testify more faithfully to the degradation, physical and moral, which overtakes the communities which are distinguished by their excess. The one set-off in theory is that the substitution of stronger drinks for lighter ones produces temporary satisfaction—a merry life if a short one. Instead of this a general depression, a melancholic tendency, is the effect, and life is "short and horrible." The drinkers are morose and suicidal in the direct ratio of the alcohol taken. In the years from 1861 to 1865 there entered the asylums of France 14,983 insane persons; in the same space of time twenty years after there entered more than 57,000. Dr. Serieux has made researches on this point as to the rôle of alcohol and he has found that of the relapsed cases (*récidivistes*) 78 per cent. were drinkers, while of violent lunatics 88 per cent. were drinkers. Short of insanity the *morale* of the French workman is rapidly deteriorating under the influence of alcohol. He loses his ambition and goes down from a master worker to a labourer. The degeneration affects whole families, especially in Normandy. An instance is given of a family which had occupied a mill for two generations. At first they were giants (*colosses*); now the grandchildren are dwarfs and stunted. They are without any desire to be raised again and prefer to be servants. In some parts the drinking is incredible; thus the peasants in the neighbourhood of Flers and Falaise "have the glory of having arrived at the consumption of *un litre d'eau-de-vie de cidre par jour*," or 365 litres per year. In Normandy the women are as bad as the men and the infants are getting *eau-de-vie* in all their food. What strikes the writer in the *Figaro* is that while other nations are alarmed and are making efforts to overcome this terrible agent France is drinking more and more. He quotes encouraging facts as to the success of such efforts. In Sweden, e.g., the race threatened to be extinguished by a consumption in 1829 of 23 litres per head per annum; they set themselves strenuously to resist and have brought the consumption down to 3·2 litres. So in other countries. The patriotic writer says: "Shall we leave France to her fate without an attempt to save her?" and answers with a thousand Noes. We have too big a beam in our own eye to moralise on the state of France, but we rejoice that this gigantic evil is being recognised by Frenchmen and we heartily hope for the victory of France over one of her greatest enemies.

ANNUAL ORATION AND CONVERSAZIONE AT THE MEDICAL SOCIETY OF LONDON.

THE annual oration of the Medical Society of London was delivered at the society's home in Chandos-street on May 15th and was listened to by a very large number of members and guests who were received by the President, Mr. Edmund Owen. The oration was delivered by Mr. Alban Doran on Shakespeare and the Medical Society and was a very brilliant performance. A vote of thanks was proposed by Dr. Thorowgood, seconded by Sir William Dalby, and carried by acclamation. Subsequently a conversazione was held in the rooms which were crowded till a late hour. Excellent music was provided by the Bijou Orchestra and a most enjoyable evening was spent, thanks to the careful arrangements made by the honorary secretaries, Dr. Calvert and Mr. Battle, and the registrar, Mr. W. R. Hall.

PHLEGMASIA DOLENS IN TYPHOID FEVER.

PHLEGMASIA dolens is rare in typhoid fever; Murchison estimated its incidence as 1 per cent. In an interesting lecture published in the *Boston Medical and Surgical Journal* of March 23rd Dr. Da Costa states that among 215 cases of typhoid fever in soldiers admitted into the Pennsylvania Hospital phlegmasia dolens occurred in no less than 30, or 14 per cent. The general proportion of cases with this complication in the hospital is not more than 1 or 2 per cent. In 18 cases under the care of Dr. Da Costa the left leg was affected in three, the right in two, and both legs in 13. He explains the frequency of the complication in soldiers by predisposition from distension of the veins of the legs in marching. But excepting some from Porto Rico most of the soldiers came from training camps where marching was not excessive though more than men just come from civil life were accustomed to. The gravity of the infection also was important, for nearly all the cases occurred in those in whom the fever had been severe. This complication occurred mostly at the end of the fever or during convalescence. The earliest symptoms are increased temperature and pain in the limb. Chills sometimes precede it. The pain is usually associated with tenderness which first shows itself in the calf. Swelling is generally obvious, especially below the knee. The limb is tense and hard though there may be some pitting around the ankles and calf. The skin is pale or white, but here and there an erythematous blush or even a small ulcer is seen. The veins may be prominent or not, tender or not. Those most usually affected are the internal saphenous and femoral, especially at their junction; sometimes the affection extends to the iliac veins and even to the vena cava. As to the pathology Dr. Da Costa regards the complication as primarily thrombosis which afterwards may or may not be complicated by phlebitis or periphlebitis. As a rule the thrombus gradually disappears without serious symptoms and the phlebitis if present slowly yields, or an adhesive inflammation results and a collateral venous circulation is established. But cases have been recorded

in which pyæmia or fatal embolism occurred. In a case observed by Dr. Da Costa death resulted from embolic pneumonia. Gangrene is an occasional result. Recovery is slow and the leg may remain swollen for months or readily become so after exercise. The dilated superficial veins may show how much the circulation has been interfered with, and adhesive inflammation may leave the saphenous or femoral vein hard and cord-like. The treatment consists in elevating the leg to assist the circulation and in applying heat and bandaging to relieve the pain. A fomentation of equal parts of hot lead lotion and laudanum gives the most relief. Constipation, if present, must be treated. If the pain is persistent belladonna plaster in strips or belladonna ointment applied along the vein is often useful. When the patient leaves his bed the limb should be well bandaged, which must be continued, or an elastic stocking must be used, for a long time until the veins recover their tone and until symptoms of obstruction have disappeared.

LIFE TABLES.

AT a meeting of the Royal Statistical Society held on May 16th in the Lecture Theatre of the Royal United Service Institution, a paper was read by Mr. T. E. Hayward, medical officer of health of Haydock, Lancashire, "On Life Tables: their Construction and Practical Uses." Allusion was first made by Mr. Hayward to the relative importance of vital statistics as compared with other subjects from time to time brought before the society and the special value of life tables was emphasised. A life table was then defined as a scientific instrument designed for exactly measuring the forces of life and death prevailing, whether among a whole nation or in the separate communities which constitute the nation, and it was pointed out that only by the use of life tables was it possible for exact comparisons to be made in these respects. Mr. Hayward had as his primary object in preparing the paper the desire to aid his brother medical officers of health in comprehending what had been regarded as a very abstruse and difficult matter and thus to promote the more general working out of local life tables for the various sanitary districts into which the country is divided. Special emphasis was laid upon the fact that no very profound mathematical knowledge is required for this work, the only equipment needed being a working knowledge of the use of seven-figure logarithms and some patience in applying the ordinary rules of arithmetic and the endeavour would be made so fully to explain the subject that the plain man need not err therein.

INTERNATIONAL EPIDEMIOLOGY.

THE geographical distribution of disease is a subject concerning which we know considerably more than of the laws which govern such distribution, and, unfortunately for the study of these laws, diseases, whether endemic or epidemic, are no respecters of international boundaries or scientific frontiers, unless, indeed, such frontiers happen in any case to be conterminous with the natural limitations of any given disease. While therefore this condition of affairs obtains we must be content to study the behaviour of the disease by making use of the facilities which national statistics and administrations afford, and by the comparison of the results and impressions obtained in one nation with those obtained in others. Doubtless had there been a universal language far greater progress would have been made in this direction than has been the case up to the present, and it is to be feared that until the English develop greater linguistic tendencies some of the good work done by workers in European countries other than France and Germany must remain but imperfectly appreciated. We are glad, however, to see that the Epidemiologi al Society of London are developing the international aspect of their society and that Dr. Saltet, the Professor of Hygiene in the University of Amsterdam and Foreign Secretary of the Epidemiological Society of London for Holland and Belgium, is to deliver an address at the rooms of the Medical Society, 11, Chandos-street, Cavendish-square, W., at 8.30 P.M. on Friday, May 19th. Professor Saltet has selected for the title of his paper "A Study of Enteric Fever in the Netherlands," and as the address is, we hear, to be delivered in English, a language which Professor Saltet speaks quite fluently, an interesting discussion may be looked forward to. It is probable that but few of the members of the society are so familiar with Dutch as to be able to debate in it.

ELEMENTARY CHEMISTRY.

IT is remarkable, when elementary chemistry is reinvestigated under the conditions afforded by the increased facilities of modern times, what interesting results are obtained. Chemists would seem to have been spellbound by the interesting possibilities opened up by the pursuit of the organic section of the science, taking the rudiments as granted and established long ago. But if these investigators could be induced to leave the alluring and fascinating field of organic research in favour of elementary inorganic work the results would be equally interesting and probably equally, if not more, important in strengthening the substructure of the science. At the last meeting of the Chemical Society Professor Harold B. Dixon detailed the results of some simple experiments and they proved interesting. Thus, in dealing with the combustion of carbon disulphide he found that the vapour undergoes a phosphorescent combustion in air similar to that of phosphorus and sulphur. In the combustion of carbon disulphide, in spite of the presence of an excess of oxygen, small quantities of unaltered carbon disulphide as well as oxysulphide and monoxide of carbon remain. In another paper Professor Dixon showed that in the combustion of carbon it is not strictly true that the formation of carbon dioxide is due to a single and direct action between carbon and oxygen. It has been accepted that carbon monoxide is only formed by a secondary action between carbon dioxide and carbon. On the other hand, experiments would seem to make it very probable that in the combustion of carbon the incomplete product carbon monoxide is first formed. This should throw some light on the conditions ensuring the perfect combustion of coal and coal gas and thus directly affect the question of smoke abatement. It is now well known, further, that in the products of the spontaneous oxidation of coal at ordinary temperatures deadly carbon monoxide occurs which would injuriously affect the health of miners.

TUBERCLE OF THE TESTICLE IN CHILDHOOD.

THE *Journal de Clinique et de Thérapeutique Infantiles* of May 4th contains a report of M. Felizet's observations on 58 cases of tubercle of the testicle in childhood. From these it appears that the disease almost invariably attacks this organ in children under seven years of age. As in adults, the epididymis is by far its most usual place of origin, the cord is less often invaded, the prostate, the vesiculæ seminales, and the bladder still less frequently. Hydrocele is rarely present and the course of the disease, as might be expected in tissues which are virtually embryonic, is often rapid, infection proceeding not only by the spermatic blood-vessels but by the inguino-iliac lymphatics also. M. Felizet is not an uncompromising advocate for castration as a remedy, but is disposed up to a certain point to rely on hygienic and medicinal measures. Even when there is adhesion of the testicle to the scrotum and subsequent abscess formation

he is content to employ local conservative methods. When, however, in addition to suppuration there are present the signs of general impairment of health he advocates immediate removal of the gland as the only means of preventing a very rapidly fatal form of general tuberculosis. Unfortunately, we are not informed of the results obtained by treatment in these 58 cases. If they should hereafter be forthcoming they ought materially to aid a decision as to the true indications for castration in the infantile variety of this disease. M. Felizet contends that the condition of rapid tissue development is not favourable to the resistance of an infective process and in that case the stage of hygienic treatment and local conservative surgery must be a period of watchful care and not be too prolonged. Many authorities consider that in the adult excision of the testicle offers the best hope of cure and we are still in want of proof to show that the case of children is materially different.

TUNG WAH HOSPITAL, HONG-KONG.

IN the report of the Hong-Kong Medical Department for 1897 several pages are devoted to the Tung Wah Hospital. Dr. J. M. Atkinson, the principal civilian medical officer of the colony, considers that the existence of this institution in which more than four-fifths of the inmates are treated by so-called Chinese methods is somewhat anomalous in a British colony. Without discussing the expediency of humouring the prejudices of the Chinese population, who out-number the Europeans by 20 to one, he is of opinion that from a medical point of view the hospital ought to be abolished, although he admits that it serves a useful purpose as an asylum for destitutes and a resting place for the dying. The medical staff have no knowledge of surgical treatment and no instruments; pitch-plaster is their panacea for all surgical injuries and diseases, and they never administer chloroform. Once in 1895 when Dr. Atkinson showed them the relief which a catheter gave to a patient suffering agonies from distension of the bladder they smiled and seemed highly amused, but it did not occur to them that such knowledge would be useful. The patients are mostly poor people of the artisan class, coolies, &c., all of whom have a dread of the foreigner and his methods. Treatment on European principles carried out by a Chinaman, Dr. Chung, may be had by those who desire it, and it is the practice for the head coolie to ask the patients at the time of admission which system they prefer. Dr. Atkinson considers that the indigent Chinese should be treated according to European methods in a hospital under the direct supervision of the Colonial surgeon-in-charge, the Asiatic medical staff being employed only as dressers, a course for which there is a precedent in the Tan Tock Seng Hospital at Singapore, where the great majority of the patients are Chinese. An appendix to Dr. Atkinson's report contains a statement of the work done by Mr. Frank Browne, F.C.S., in the Government laboratory. There were five cases of datura poisoning investigated during 1897, all of them being with criminal intent. All the patients recovered. The mydriatic principle of datura was isolated from their urine without difficulty.

SANITATION IN EDINBURGH.

WE have received a copy of the annual report of the chief sanitary and market inspector of the city of Edinburgh (Dr. A. M. Williamson) for the year 1898, from which it would appear that distinct sanitary progress is being made. The sanitary supervision of the city is being extended, and to carry this out more satisfactorily the city has been divided into wards, and for this purpose the services of nine inspectors have been retained to make a door-to-door inspection "in quest of conditions of an insanitary nature." Four other inspectors devote their time to dairy, bake-house, and lodging-house inspection and the carrying out of the provisions of the Factory and Workshops Act, the Shop Hours Act, and the Food and Drugs Acts. The report is illustrated with some excellent and instructive diagrams on the relation of overcrowding, &c., to the public health. Under the Food and Drugs Acts 50 per cent. of the articles secured were of doubtful quality, milk and butter being the subjects most liable to adulteration. Under the Margarine Act seven prosecutions were instituted and a conviction followed in each case. Dr. Williamson points out that a great laxity exists in carrying out the provisions of this Act. An excellent look-out is kept in the city to exclude as far as possible the sale of tainted meat. Under the heading of tuberculosis Dr. Williamson makes one important remark which applies, we feel sure, to other cities in the kingdom. "Every byre in the city," he says, "is regularly inspected once a fortnight, and in this manner the slightest indication of a commencing disease of this dangerous nature is at once detected." "The importance of extending this system of inspection," he adds, "to those country byres which contribute supplies of milk to the city is accentuated by an inquiry which I have recently instituted as to the source of the whole of our milk-supply. This inquiry disclosed that while the daily consumption of sweet milk amounts to nearly 13,000 gallons, between 7000 and 8000 of these—i.e., more than half—are received from districts to which our inspection does not extend." This section of the report is accompanied by an excellent plate showing the microscopical appearance of tuberculous milk.

THE ROYAL BRITISH NURSES ASSOCIATION.

THE *café chantant* presided over by H.R.H. the Princess Christian at the Hotel Cecil on May 15th was a great success. Both afternoon and evening the rooms were filled with an audience which will probably mark the occasion as one of the principal events of the season. Amongst those who, in addition to the Royal President, honoured the entertainment with their presence were: the Prince of Wales, Prince Christian, the Duchess of York, the Duchess of Connaught, Princess Henry of Battenberg, Princess Victoria, the Duke and Duchess of Devonshire, and the Duchess of Marlborough. The practical manner in which the assembly showed appreciation of the association and its objects should do much to place it on a permanent basis. The object is to further everything which appertains to nursing. Unfortunately its work has been greatly retarded by internal dissensions. Now, however, these have been overcome and it is to be hoped that many prominent matrons and others holding high positions in the nursing world who formerly refused to support the association will now withdraw their opposition and join its council in its efforts to sustain the honour of its members. Amongst its many endeavours is one which will appeal to everyone—namely, the establishment of an endowment fund to provide for nurses who from age or physical infirmity are unable to carry on their duties. The substantial sum which the *café chantant* must produce will materially benefit this special fund. The programme must have satisfied the most critical. Recitations, songs, and dramatic interludes followed each other in rapid and varied succession. The theatres sent a strong contingent of well-known artists, such as Lady Bancroft, Mr. Charles Wyndham, Mr. H. B. Irving, Mr. Louis Calvert, Miss Esmé Beringer, Miss Mabel Lewis-Terry, Mr. Cyril Maude, Mrs. Tree, and many others no less celebrated, while the opera and concert hall were represented by Mr. Joseph Hollman, Miss Marian Mackenzie, Miss Giulia Ravogli, Madame Alice Gomez, Miss Clara Butt, Vladimir de Pachmann, Johannes Wolff, and Madame Norcrosse. The highest praise

is due to Mr. George Alexander for the manner in which he organised the entertainment and Mr. Lionel Brough and Mr. H. H. Vincent were indefatigable as stage managers. Many other ladies and gentlemen also rendered good service.

"DENATURALISATION."

"DENATURALISATION" is a term which is now applied to that process which renders certain substances unfit for human consumption. The process has become a necessity in modern times in order to promote fairness in commercial competition and to cheapen certain commodities when used exclusively in industrial operations. Thus a few years ago the manufacture of caffein was almost monopolised by Germany on account of the fact that tea intended for human consumption in this country was too expensive to extract. Owing, however, to the representations of English scientific manufacturers a revised regulation was framed a few years ago according to which damaged tea could be admitted duty free provided that it was "denatured" and rendered wholly unfit for human consumption by treatment with lime and asafœtida. Tea treated in this way is now used profitably for the manufacture of caffein and England has become the chief seat of the manufacture and has thus completely turned the tables upon her competitors, for now the alkaloid is exported from this country to Germany and America. A similar example, we believe, occurs in the case of damaged or unclaimed tobacco which previously was destroyed in the "Queen's pipe" at the docks. Instead of this waste going on such tobacco is now largely used for the preparation of nicotine washes for killing vermin, &c. Without "denaturalisation" alcohol for the purposes of the arts and industries would be so expensive as to be prohibitive because it would be drinkable. But recourse has been made to adding a substance to the spirit which makes it undrinkable but which at the same time does not interfere with its properties for certain manufacturing processes. Formerly wood spirit was employed, but, such is the evil tendency of human nature, the vile mixture became a cheap and favourite tipple. Next a proportion of petroleum spirit was tried, a method obtaining at the present day, but even this has been found to be a palatable, as it certainly is an intoxicating, mixture by some persons. Cases are even recorded in which some depraved wretches find paraffin oil an agreeable stimulant. The problem therefore of "denaturing" alcohol cannot be regarded as satisfactorily settled. The latest suggestion is acetone oil, of which 1 per cent. is said to be sufficient. But that nasty, nauseous, onion-smelling liquid, allylic alcohol, is said to give even better results added in the proportion of one-tenth to one-half per cent. in volume. The desiderata of a "denaturaliser" for alcohol are that it should render it unfit for consumption without making it more inflammable, while the material should be cheap and easy to detect and its separation by rectification should be impossible for any commercial advantage.

T.R.H. THE DUKE AND DUCHESS OF YORK will, on Thursday, June 22nd, visit Chalfont St. Peter to open four new homes at the colony established there by the National Society for Employment of Epileptics, of which His Royal Highness is president. These homes comprise two for children, one for men, and one for cases requiring special care and treatment, and they will in the aggregate increase the existing accommodation of the colony by nearly 100 beds. The cost of building the new homes has been defrayed by special donations given respectively by Mr. Passmore Edwards, Mr. Frederick Greene, and Mrs. Dearmer, but the cost of the necessary furniture and equipment has as yet been only partially provided.

WE regret to learn that Dr. W. S. Playfair sustained a somewhat severe shaking last week in an accident which occurred to the motor-car in which he was riding. The heavy car turned over and fell on his back. He was carried into the surgery of Mr. W. H. Beresford of Egham Hill, whose assistant, Mr. Sherwen, conveyed him to London under the influence of an anæsthetic. He sustained no serious injury beyond considerable shock and severe muscular contusions, from which he is now rapidly recovering.

UNDER the title "The Spinal Animal" Dr. Sherrington, F.R.S., who was recently awarded the Marshall Hall Prize by the Royal Medical and Chirurgical Society, will deliver an address illustrated by diagrams and lantern slides at the next meeting of that society to be held at 20, Hanover-square, W., on Tuesday, May 23rd, at 8.30 P.M. Dr. Sherrington's well-known researches on the subject which he has chosen for his address give promise that it will be of great scientific value.

THE Council of the Childhood Society announce a discussion to take place on Friday, June 2nd, at 5 P.M., in the library of the Sanitary Institute, 72, Margaret-street, W. The subject will be the Education of Children Feebly Gifted Mentally under the Care of Guardians and it will be opened by Dr. G. E. Shuttleworth.

WE have received a nicely got up little pamphlet containing a translation into Italian of the report of THE LANCET Special Commission on Sicily as a Health Resort. It is issued by the Associazone pel Bene Economico at Palermo.

SIR FELIX SEMON requests us to state that an article concerning himself which appeared in a recent issue of *M.A.P.* was published without his knowledge and consent.

PROFESSOR R. C. JEBB, M.P., has consented to distribute the certificates and prizes at King's College, London, on July 12th.

THE LECTURESHIP ON TROPICAL MEDICINE AT ABERDEEN UNIVERSITY.

BRIGADE-SURGEON-LIEUTENANT-COLONEL G. A. MACONACHIE, I.M.S., M.D. Aberd., M.R.C.P. Lond., late Principal of the Grant Medical College, Bombay, delivered on May 1st in Marischal College, Aberdeen, his introductory address in connexion with the recently established lectureship on tropical medicine. There was a large attendance.

Principal Sir WILLIAM GEDDES, who presided, in a few introductory remarks said that Dr. Maconachie had been for 25 years professor in the Grant Medical College and that the University had made a good selection in appointing him to this important lectureship.

Dr. MACONACHIE in opening his address made the remark that it had been calculated that about one-fifth of the medical profession practise at one time or another in tropical and sub-tropical countries in various capacities, such as medical officers of the navy and army, including the Indian Medical Service, medical officers of railways and telegraph companies, mines, tea-gardens, shipping companies, also as medical missionaries and private practitioners, male and female. A knowledge of tropical medicine is essential for all who occupy such positions, but up to the present time no arrangements have been made for giving them the necessary information except in the case of the army and perhaps the navy. This instruction, however, was very necessary in the Aberdeen Medical School, for its graduates were to be found in most parts of the world and some of them filled prominent positions, such, for instance, as the present Director-General

of the Indian Medical Service, three officers who retired from India last year with the Order of Knighthood, and Dr. Patrick Manson, the medical adviser to the Colonial Office. Great improvements have been made in the conditions of life in some parts of the tropics during recent years. From the early days of the British occupation of India until almost the middle of this century the mortality among Europeans was very great. There used to be the most astonishing cases of mismanagement and obstinacy on the part of combatant officers who neglected and scorned the advice of their medical officers, while their men died like flies. The professor of medicine at Netley had many dreadful stories about the barracks, hospitals, and commanding officers of the pre-sanitary period. We read of European regiments melting away like the visions of a dream. Cases are given where 120 or 130 new recruits were required for a battalion of 1000 men every year to keep up its strength. Report after report was sent in by medical officers, but no attention was paid to the matter until the Royal Sanitary Commission sent in its report in 1863 stating that on an average 69 per 1000 Europeans died annually, after which the Government at last took up the matter and the death-rate of the troops in India is now not much greater than is that of those in this country. In fact India has improved so much as a residence that it does not much differ from Italy and some other parts in the south of Europe. In some portions of our tropical possessions things seem not to differ greatly from what they were in India in the early part of this century. In certain districts of West Africa the mortality is still very great and Mr. Chamberlain, the Colonial Secretary, has arranged that only those medical men who have been specially trained in tropical medicine shall obtain appointments in the Colonial Services. In addition to the various colonial appointments there were many openings for medical men where a knowledge of tropical diseases would be useful and it is highly probable that a certificate showing the knowledge of the applicant in such subjects would be required when such appointments were made. There are surgeoncies to the railways in India which employ great numbers of persons and are provided with workshops and hospitals. European medical men are appointed at all the most important points. The emoluments are good and private practice is allowed. In the great tea districts on the hills towards the east of India many medical men are required for the care of the European and native employés. There was another occupation which many young medical men found extremely pleasant for a time—that of ship surgeon. The vessels of the many shipping companies which carry passengers to and from India, China, and Australia might have on board a large number of convalescents from tropical fevers, liver and bowel diseases, some of them sent to sea as a last chance, the patient being certain to die if kept on land. Officers proceeding on sick-leave from India to Europe were often seriously ill and large numbers of such cases were sent in charge of young and inexperienced medical men in these passenger ships. Very often these medical men were alone and must have had some anxiety, as their knowledge of tropical diseases was only that obtainable at the ordinary medical school. The practitioner who settles at the Cape, or in China, or in eastern Africa and has to treat a case of tropical abscess, or malignant malarial fever, or beri-beri at short notice is apt to find himself at first in some uncertainty.

Tropical practice is in many respects extremely interesting. There is scarcely a tropical disease regarding which insight is not wanted as regards its pathology. The recent plague epidemic has presented many opportunities for research and quite recently most valuable discoveries have been made by Major Ross, I.M.S., regarding the relation of the mosquito with the parasite of malarial fever. Only a year or so ago has the bacterium of yellow fever been discovered and at this moment experiments are being made to try to find a serum which will reduce the mortality of this deadly disease. Beri-beri, sunstroke, negro lethargy, hæmoglobinuria, Indian non-malarial fevers, and numerous others are awaiting the expert with the microscope, for undoubtedly microphytes and microzoa have much to do with tropical diseases.

Commenting on the small number of those who make a study of tropical pathology Dr. Maconachie reminded his hearers that those of them whose tastes lay in this direction had great opportunities for making a name and at the same time keeping up the reputation of the Aberdeen school. The entrance examinations for the Indian Medical Service are not difficult for a fairly well-read man and a young surgeon with a good microscope and a knowledge of how to set about work will find his life extremely interesting. In the medical services for India and the colonies as well as in the Royal Army Medical Corps, a very large amount of the work is purely hospital work. In addition to this there are in India four large medical colleges with a complete staff of professors who in many cases are not allowed to practise. A specialist or investigator holding such appointments has, therefore, an opportunity to follow his special bent as in this country. In India a successful civil surgeon soon makes a reputation and patients flock to his hospital from all parts. Some men have removed thousands of cataracts during their service and similarly with regard to urinary calculi. In the tropics every surgeon is a physician and every physician is a surgeon; in fact, every man who has a general hospital appointment must be prepared to undertake any medical, surgical, or obstetric case which comes before him. In conclusion, Dr. Maconachie remarked on the advantages which the Government Medical Services offered to the young practitioner who could not afford to pay a large sum for an introduction to practice, and he made special mention of the greatly improved conditions of the Royal Army Medical Corps, strongly recommending that branch of the Service to those of his hearers whose inclinations lay in that direction.

It has been arranged to give a course of 25 lectures on Tropical Medicine with demonstrations by the Professor of Pathology on the various diseased conditions, bacteria, and entozoa applicable to the course. Over 30 students have entered their names to attend the class.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary meeting of the Comitia was held on May 11th, Dr. CHURCH, President, being in the chair.

The PRESIDENT announced that he had appointed Professor Bradbury Croonian Lecturer and that his subject would be "Some Points Connected with Sleep, Sleeplessness, and Narcotics."

The following gentlemen who had been elected Fellows of the College at the previous meeting were duly admitted:—Dr. William Vicary Snow, Dr. Henry Handford, Dr. Herbert Ritchie Spencer, Dr. Wilfred James Hadley, Dr. Cyril Ogle, Dr. William Halse Rivers Rivers, Dr. William John Ritchie Simpson, Dr. Percival Horton-Smith, Dr. Sydney Arthur Monckton Copeman, and Dr. Arthur Ransome.

On the nomination of the PRESIDENT Dr. Radcliffe Crocker was appointed as the representative of the College to attend an International Conference on the Prevention of Venereal Diseases to be held at Brussels, Sept. 4th to Sept. 8th. A report was received from the Laboratories Committee on April 14th informing the College that they had appointed Dr. Cartwright Wood superintendent of the bacteriological department, and that his duties will include the preparation of diphtheria antitoxin and the testing of antitoxic serums sent to the Laboratories.—Dr. PAYNE, in moving the adoption of the report, explained the great development of this department and the value which it had been to the community.—The SENIOR CENSOR (Dr. CHEADLE) seconded the motion and it was carried.

The following communications were received:—

1. From Miss Roberts, offering for the acceptance of the College a portrait of her uncle, the late Sir William Roberts, by G. F. Watts, R.A.—The PRESIDENT, in the name of the College, accepted the gift and on the motion of the TREASURER (Sir DYCE DUCKWORTH), seconded by the SENIOR CENSOR, it was resolved to send a letter to Miss Roberts thanking her for her handsome gift. The date of the portrait was about 1870.

2. From the executors of the late Dr. Hare announcing a bequest by him of £500, free of legacy duty, for the College Endowment Fund.—The PRESIDENT commented on the munificence of the gift and the TREASURER, seconded by the SENIOR CENSOR, proposed that a vote of thanks should be sent to Mrs. Hare.—This was adopted.

3. From the Lord President of the Privy Council with

reference to an exhibition to be held in connexion with the forthcoming Congress on Tuberculosis at Berlin.

4. From Sir Peter Eade with reference to a memorial statue of Sir Thomas Browne which it is proposed to erect by subscription in Norwich.—After some remarks in favour of the project by Sir F. BATEMAN the TREASURER proposed, and Dr. NORMAN MOORE seconded, that the College should subscribe the sum of 15 guineas towards the "Thomas Browne Statue Fund."—Sir F. BATEMAN, on behalf of the Organising Committee, thanked the College for the gift.

5. From a firm of photographic engravers asking permission to photograph the portrait of Dr. Arbuthnot in possession of the College for illustrating a "Cyclopædia of Literary Biographies" to be published by W. and R. Chambers of Edinburgh. Permission was granted by the College.

The PRESIDENT then dissolved the Comitia.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on May 11th, the President, Sir WILLIAM MAC CORMAC, Bart., K.C.V.O., being in the chair. The minutes of the previous meeting were confirmed, with the exception that it was decided to leave entirely open the date of the proposed celebration of the centenary of the charter of the College.

Mr. Thomas Frederick Chavasse of Birmingham was introduced and he made the required declaration to be admitted a Fellow of the College.

The Council elected Mr. Pearce Gould a member of the Court of Examiners in the vacancy occasioned by the retirement of Mr. Jeremiah McCarthy.

The Council elected Mr. Henry Morris a member of the Board of Examiners in Dental Surgery (Court of Examiners section) in the vacancy occasioned by the retirement of Mr. Jeremiah McCarthy.

A letter was read from the Solicitor to the College reporting the dismissal of the appeal against the assessment of the College. The letter was considered by the Council and referred to the Finance Committee.

A letter was read from Mr. A. W. Fitz Roy, clerk of the Privy Council, forwarding a copy of a letter addressed by the German Ambassador to Lord Salisbury and transmitted by Lord Salisbury to the Lord President of the Council, intimating that in connexion with the forthcoming Congress on Tuberculosis at Berlin it is proposed to hold an exhibition of an international character in the rooms of the "Philharmonie" at Berlin between May 20th and June 18th and asking that the attention of institutions in England interested in the subject may be called to the undertaking.

A letter was read from the Corporate and Medical Reform Association, forwarding a copy of a memorial to the General Medical Council "on the subject of illegal certificates of proficiency in departments of medicine, surgery, and midwifery," and other documents relating thereto, and asking the Council to move their representative "to support the due discharge of its functions by the (General Medical) Council and the law as now established." The matter was referred to Mr. Thomas Bryant, the representative of the College on the General Medical Council, and he was requested to take such action as he should think fit.

The draft of the proposed petition for a supplementary charter for the purpose of conferring diplomas of honorary fellowship was presented and referred to a committee to consider and report.

A HOSPITAL FOR CHILDREN IN SOUTH LONDON.

WITH the object of providing increased hospital accommodation for children in the South of London a meeting under the presidency of the Duke of Westminster was held in the Mansion House on May 12th. The existing accommodation in hospitals for children is represented by one cot for 12,560 head of the population on the south side as compared with one cot for 3523 head on the north side of the Thames, and moreover the number of poor in the south is continually increasing. The Governors of the Belgrave Hospital for Children have therefore decided to transfer that institution to Kennington and build a new hospital on a reformed basis as follows:—

1. Stringent precautions will be taken against abuse of the charity. 2. A wage limit will be fixed. 3. Only the children of the really poor will be eligible for treatment. The part-payment system will not be adopted. 4. The number of out-patients will be rigidly limited. 5. The casualty department will be restricted to cases of urgency only. 6. Registers will be kept of all patients, with the means and occupations of the parents. Free access will be given to these registers. 7. The hospital will coöperate with the local practitioners in order to ensure that the above principles shall be fully carried out. 8. Under suitable restrictions local practitioners will be enabled to obtain a consultation opinion on cases brought by them. A different wage limit will be fixed in such cases and no treatment given.

His Grace, in moving a resolution to the effect that there was urgent need for the increase of hospital accommodation for children in South London, said that the governors of the Belgrave Hospital had decided to transfer the Belgrave Hospital to a site in Kennington. They had obtained promises to the amount of £5000 with which they could make a beginning, and eventually he hoped that they would get £50,000 to complete the scheme.

The Bishop of ROCHESTER seconded the motion. He said that he was present rather to set forth the greatness of the need than to represent the origin of the movement. South London was the most needy district in his diocese, but it was marvellous how little was known of the conditions prevailing on the south side of the Thames. They had seen that morning that an American town had been made in a week, and though South London did not increase so fast as that he had been astonished at the complete change which took place in some districts within a few months. The population increased annually by 26,000 as compared with 14,000 in the north, and yet they were not so well provided with hospital accommodation, having only two hospitals as against 11 in North London. If people could only realise the circumstances under which this increase took place, and the sufferings of poor children, no other appeals or arguments would be necessary.

The Rev. BERNARD SNELL supported the motion, which was unanimously carried.

Dr. FARQUHARSON, M.P., in moving a proposal to the effect that that meeting approved of the scheme put forward by the executive committee for the transfer of the Belgrave Hospital to a site already secured in Clapham-road, Kennington, said that the medical men in Kennington had cordially welcomed the scheme and had determined to give the new hospital their most loyal support. He had every reason to believe that the hospital when built would become a model one in every respect.

The Hon. EVELYN HUBBARD, M.P., seconded Dr. Farquharson's motion and remarked that the central block of the new buildings including the administrative portion with two floors of wards could be built for £10,000 and the out-patients' department for £5000, so that for £15,000 a good start could be made. Incidentally he remarked that mild pressure would be put upon the Government in order to obtain exemption from rates for hospitals.

Mr. CLINTON T. DENT, F.R.C.S. Eng., supported the motion, which was carried, and a vote of thanks to the Chairman and to the Lord Mayor for the use of the Mansion House terminated the proceedings.

THE PREVENTION OF TUBERCULOSIS.

(Continued from p. 1318.)

HALIFAX.

A CONFERENCE of Poor-law guardians was held at Halifax on May 12th to consider the treatment of inmates of workhouses suffering from phthisis. Mr. Josiah Wade, the chairman of the Halifax Board of Guardians, presided, and there were a fair number of medical men present, including Dr. Dolan of Halifax (medical officer of the Halifax Board of Guardians), Mr. Ainley (medical officer of health of Halifax), and Mr. McCandlish of Leeds. The Chairman explained that the present meeting was virtually due to the persistency with which Dr. Dolan had brought the matter before the board of guardians. Dr. Dolan impressed upon the guardians that disease was the great factor in the production of pauperism. Phthisis could be fought by means of climatic treatment here just as well as on the continent, but the

matter was one for the municipality. Mr. McCandlish, speaking for Leeds, said that any scheme brought forward should receive his colleagues' hearty coöperation. Mr. F. H. Bentham of Bradford brought forward a motion expressing the opinion that phthisical inmates of workhouses should be treated elsewhere than in workhouses or infirmaries, and asking boards of guardians to consider the question with a view to providing isolated hospitals. The motion was carried.

SHEFFIELD.

On May 10th there was held a large and important meeting in the banqueting-room of the Cutlers' Hall with a view to establish a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis. The Lord Mayor was in the chair and was supported by Sir William Broadbent, the chairman of the Organising Committee of the Association, and Professor Clifford Allbutt. The Chairman explained the objects of the meeting and the importance of the movement. Sir William Broadbent gave an account of the origin of the Association, its objects, the various criticisms to which it had been subjected, the nature of predisposition to tuberculosis, and the benefits of the movement. Professor Clifford Allbutt who followed spoke of the value of prevention in medicine and the exceeding importance of comparative pathology. Dr. Dyson proposed the first motion affirming the formation of a branch and this being duly carried another was moved by Alderman W. K. Carter which dealt with the organisation of the branch. After this had been carried the usual votes of thanks were passed and a special tribute of thanks was paid by the Lord Mayor to Dr. D. Burgess, the local honorary secretary, to whose labours the success of the meeting was in great measure due.

PORTSEA.

A discussion took place at the meeting of the Portsea Board of Guardians which was held on March 29th. The discussion arose out of the consideration of the report of the special Infirmary Committee appointed to examine into "the best means of treating our consumptives and other cases of tuberculous disease by the modern fresh-air treatment." The report pointed out that the committee were quite convinced of the efficacy of the fresh-air treatment as carried out at Ventnor and that although they could not expect the same success with ordinary infirmary patients as with the selected patients at Ventnor, yet they thought that great benefit would accrue by making certain structural alterations in the Portsea Infirmary. These were, shortly, making the windows larger and putting up a verandah.—Mr. H. P. Gaston, after speaking on the importance of fresh air and light, moved the adoption of the report. As for the erection of a sanatorium, that was a matter for the town council. The report was eventually adopted.

THE CASE OF HUNTER *v.* CLARE.

WE have received the following appeal through Mr. Rivers Willson from the committee who are raising a fund in behalf of the widow of the late Mr. H. K. Hunter:—

The committee earnestly desire to draw the attention of members of the medical profession to the sad case of Mr. Herbert Kingsley Hunter, who died suddenly on July 19th, 1898, at Gamlingay, at the early age of 30 years, leaving a widow totally unprovided for. The committee think that this case specially calls for the support of the profession, not only to relieve the sad condition of the widow, but also to serve as an expression of opinion on their part against the treatment Mr. Hunter received and which there is only too good reason to believe led to his fatal attack.

The facts are briefly as follows:—A few years ago Mr. Hunter, after receiving his medical education in this country, went to Pennsylvania with his wife, with the intention of settling and practising there. He entered as a student at Jefferson's College, Philadelphia, a recognised State University, and after passing through the ordinary curriculum graduated as M.D. Shortly afterwards, owing to domestic reasons, he was compelled to return to England and to take steps to qualify himself to practise in this country. Accordingly he acquired the diploma of the London Society of Apothecaries and having become a registered medical practitioner bought a practice at Gamlingay, in the county of Cambridgeshire. He soon became popular and had every chance of a prosperous career, but complaints were made against him before the General Medical Council: (1) that he called himself "Dr." on the strength of an American degree; (2) that he made use of the style "Physician and Surgeon," being only a Licentiate of the Society of Apothecaries. In consequence of representations from the General Medical Council Mr. Hunter agreed to make no further use of his degree, and asked the Council what title he should use to indicate he was lawfully qualified to practise medicine and surgery. That body refused to advise and Mr. Hunter thought the matter was at an end. Great was his consternation when one day he received a summons to attend before the petty sessions at Caxton in consequence of a prosecution instituted by the General Medical Council. So profound was the shock that he was taken ill the same day with cardiac symptoms, from which he had never before suffered. At the petty sessions he was convicted by the justices of "wilfully and falsely" styling himself a "physician," but at this stage the Society of Apothecaries intervened on his behalf and appealed to the Divisional Court of Queen's Bench. It may be stated, however, that all the cost of the trial before the magistrates had to be defrayed by Mr. Hunter himself, and the whole matter tended greatly to injure his practice, for it was reported throughout his neighbourhood that he was an American quack; the action of the General Medical Council could not but appear to corroborate popular rumour that he was an unqualified practitioner. Before the appeal came on in London Mr. Hunter, returning home after a hard day's work, had a recurrence of the symptoms which had first manifested themselves on the receipt of the original summons and died quite suddenly. A report was immediately circulated that he had committed suicide; but Mrs. Hunter acted promptly by sending at once to Cambridge for medical assistance and a post-mortem examination annihilated the cruel libel.

The result of the trial before Justices Lawrance and Channell is well known and until the decision there given is reversed, or fresh legislation has abrogated it, it would appear that medical men, lawfully qualified to act in every respect as surgeons and physicians, may be prosecuted and fined for calling themselves such. The decision is a far-reaching one, for not only are all Licentiates of the Society of Apothecaries subject to this penalty, but medical and surgical graduates of our universities are equally involved. For if there is any meaning in the decision of the Divisional Court, it is that the titles "Physician and Surgeon" are at law rigidly restricted to Fellows, Members, and Licentiates of a College of Physicians or Surgeons respectively.

Under these circumstances it seems to the committee that important principles are at stake, affecting the well-being of a large portion of the profession, and that the Hunter Fund is deserving of every possible support, if for no other reason than as a practical protest against the present iniquitous state of the law as shown by the recent trial at the Royal Courts of Justice.

ALFRED GEORGE BATEMAN, M.B.
MAJOR GREENWOOD, M.D., LL.B., Barrister-at-Law.
RIVERS WILLSON, Ph. D., L.S.A. Lond.
G. JACKSON, F.R.C.S. Eng.
M. CURSHAM CORNER, M. and L.S.A. Lond.
JOSEPH SMITH, Pres. Soc. of Members R.C.S., M.R.C.S., L.S.A., D.P.H. Camb.
R. REGINALD SLEMAN, M.A. Camb., L.S.A. Lond.
} Committee.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—A dog show will be held on June 3rd at the London (Royal Free Hospital) School of Medicine for Women, 8, Hunter-street, Brunswick-square, W.C. Only qualified practitioners, members of the teaching staffs at the medical schools, and medical students may exhibit. The committee has made arrangements to include as eligible dogs belonging to members of the families of the above. The show which has been licensed under the Kennel Club will last one day, closing at 7 P.M. The judging will begin at 1.30 P.M. 26 classes have been provided; three prizes are offered in each class and a large number of special prizes have been offered. Captain Barry, Mr. E. W. Allen, and Mr. G. R. Krehl have kindly volunteered their services as judges. The proceeds are to be devoted to the building fund of the school.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bromsgrove Urban District.—Dr. Cameron Kidd, while warning the council of this district against drawing conclusions from the statistics of one year, shows them by reference to the figures of the last decade that the work which they have, under his guidance, carried out has had a marked effect in a reduction of a death-rate of 20·2 in the first five years of the decade to 16·2 in the second quinquennial period. In discussing the value of isolation accommodation Dr. Kidd points out how that the removal of a first case of infectious disease from a dwelling prevents that saturation of all the rooms with infection which is not unlikely to occur from the protracted presence of a patient, more especially in such diseases as scarlet fever where the patient is able to move about freely. Dr. Kidd refers with much satisfation to the opening of the joint isolation hospital for the districts of Bromsgrove, Droitwich, and Redditch, but we are sorry to see that there has existed a certain amount of prejudice against the institution, so much so indeed that Dr. Kidd has determined, so far as an attack upon the administration of the hospital involves him personally, to vindicate himself in a court of law. The management of a fever hospital is always a difficult task, the duty being rendered doubly onerous when attempts are made to damage the position of a medical man of such high professional attainments as Dr. Cameron Kidd, and it is to be hoped that his action will have a good effect upon those who think that a medical man may be attacked with impunity. The new glycerinated calf lymph is spoken of very highly by Dr. Kidd. He remarks that while the lymph affords a "practically certain immunity from the accidental introduction of disease of any kind, it has also greatly diminished the severity of the local effects of vaccination itself; indeed, it is surprising to anyone accustomed to the old-fashioned vaccination to see the mildness of the symptoms produced by the use of this lymph—an almost complete absence of surrounding inflammation is now the rule rather than the exception."

Whitechapel Sanitary District.—The Jewish Board of Guardians have in this district recently given further evidence of their desire where possible to further sanitary reform and they have after inquiry directed that when a patient receives relief from the board of guardians the inspector appointed by this body shall disinfect all rooms which patients with phthisis have inhabited. The officers of the sanitary authority are able, Mr. Joseph Loane reports, to work very smoothly with the Jewish inspector.

Surbiton Urban District.—Dr. Owen Coleman has clearly but little sympathy with those who yield to the prejudices of patients by vaccinating by means of one insertion alone. In the course of some observations on this subject Dr. Coleman remarks: "If he [the medical man] believes in vaccination let him do it as he knows it should be done, or let him say he does not believe in it and decline to have a hand in it. But to vaccinate in *one* spot and to sign a certificate that a child is thereby successfully (and by implication efficiently) vaccinated, may be an easy matter to reconcile with his conscience and his duty to his patient since the parent is presumably a consenting party, but it is another matter if he conceive he has done his duty by his countrymen and women. He thereby assists very materially in bringing discredit on vaccination in the eyes of the ignorant and unthinking as a protective against small-pox. Such a child is *not* efficiently protected, but goes out into the world as if it were, and later on possibly contracts the disease and appears in the returns amongst numbers of similar cases as 'having contracted small-pox though successfully vaccinated.'" We have quoted Dr. Coleman's comments in full because they are so much to the point at the present time when an attempt is doubtless being made to bring future discredit upon vaccination by performing the operation inefficiently and placing the patient in a position of false security. The anti-vaccinationist will welcome the prevalence of inefficient vaccination because it is certainly calculated to further his ends. There is, indeed, very much force in Dr. Coleman's position when he advocates one of two courses—i.e., either vaccination properly performed or a certificate of conscientious objection. No half measures. Let us have the vaccinated properly vaccinated and the unvaccinated registered as such.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6637 births and 3876 deaths were registered during the week ending May 13th. The annual rate of mortality in these towns, which had declined in the six preceding weeks from 23·1 to 16·5 per 1000, rose again last week to 17·7. In London the rate was 16·4 per 1000, while it averaged 18·6 in the 32 provincial towns. The lowest rates in these towns were 11·1 in West Ham, 12·2 in Gateshead, 12·9 in Norwich, and 13·1 in Swansea; the highest rates were 22·9 in Wolverhampton, 24·9 in Manchester, 25·6 in Liverpool, and 26·8 in Salford. The 3876 deaths included 365 which were referred to the principal zymotic diseases, against 383 and 339 in the two preceding weeks; of these, 106 resulted from measles, 98 from whooping-cough, 82 from diphtheria, 30 from diarrhœa, 26 from "fever," principally enteric, 22 from scarlet fever, and one from small-pox. The lowest death-rates from these diseases were recorded in Croydon, Brighton, and Bristol, and the highest rates in Leicester, Manchester, Salford, and Burnley. The greatest mortality from measles occurred in Manchester and Salford; from scarlet fever in Bradford; and from whooping-cough in Plymouth, Cardiff, Birkenhead, Burnley, and Hull. The mortality from "fever" showed no marked excess in any of the large towns. The 82 deaths from diphtheria included 40 in London, eight in Leicester, five in Liverpool, four in West Ham, four in Leeds, three in Salford, three in Burnley, and three in Sheffield. One fatal case of small-pox was registered in Hull, but not one in any other of the 33 large towns; and no small-pox patients were under treatment last week in any of the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of last week was 2210, against 2131, 2139, and 2210 on the three preceding Saturdays; 259 new cases were admitted during the week, against 189, 226, and 219 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 294 and 251 in the two preceding weeks, rose again last week to 257, but were 53 below the average. The causes of 53, or 1·4 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Leicester, Bolton, Newcastle-upon-Tyne, and in 12 other smaller towns. The largest proportions of uncertified deaths were registered in West Ham, Portsmouth, Liverpool, Blackburn, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had beeen 21·1 and 18·5 per 1000 in the two preceding weeks, was again 18·5 during the week ending May 13th and exceeded by 0·8 per 1000 the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 11·8 in Perth and 13·7 in Greenock to 19·1 in Glasgow and 22·2 in Dundee. The 565 deaths in these towns included 27 which were referred to measles, 10 to whooping-cough, six to diphtheria, four to diarrhœa, three to "fever," and three to scarlet fever. In all, 53 deaths resulted from these principal zymotic diseases against 76 and 52 in the two preceding weeks. These 53 deaths were equal to an annual rate of 1·8 per 1000, which slightly exceeded the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of measles, which had been 30 and 16 in the two preceding weeks, rose again to 27 last week, of which 20 occurred in Glasgow and four in Aberdeen. The 10 deaths referred to whooping-cough showed a further decline from the numbers recorded in recent weeks, and included three in Edinburgh, two in Glasgow, and two in Dundee. The fatal cases of diphtheria, which had been three and five in the two preceding weeks, further rose to six last week, of which three occurred in Glasgow. The three deaths from scarlet fever corresponded with the number recorded in the preceding week, and included two in Edinburgh. Of the three deaths referred to different forms of

"fever," two were registered in Glasgow. The deaths from diseases of the respiratory organs in these towns, which had been 117 and 109 in the two preceding weeks, further fell to 97 last week, and were 12 below the number in the corresponding period of last year. The causes of 21, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the four preceding weeks from 33·4 to 24·8 per 1000, rose again to 26·7 during the week ending May 13th. During the past four weeks the rate of mortality in the city has averaged 27·8 per 1000, the rate during the same period being 16·6 in London and 17·5 in Edinburgh. The 179 deaths registered in Dublin during the week under notice showed an increase of 13 upon the number in the preceding week, and included eight which were referred to the principal zymotic diseases, against 12 and seven in the two preceding weeks; of these three resulted from "fever," two from scarlet fever, two from whooping-cough, and one from diphtheria, but not one either from small-pox, measles, or diarrhœa. These eight deaths were equal to an annual rate of 1·2 per 1000, the zymotic death-rate during the same period being 1·7 both in London and in Edinburgh. The deaths referred to different forms of "fever," which had been three and two in the two preceding weeks, rose again to three last week. The two fatal cases of scarlet fever exceeded the number recorded in any week since the end of March last. The two deaths from whooping-cough showed a further decline from the numbers returned in recent weeks, while the mortality from diphtheria corresponded with that recorded in the preceding week. The 179 deaths in Dublin last week included 26 of infants under one year of age and 63 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons considerably exceeded the number recorded in the preceding week. Seven inquest cases and six deaths from violence were registered; and 74, or more than a third, of the deaths occurred in public institutions. The causes of 11, or more than 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are announced:—Surgeons: E. D. J. O'Malley to the *Dido*, and H. W. M. Rees to the *Duke of Wellington* for the *Jaseur*.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel R. W. Mapleton acts as Principal Medical Officer, North-Eastern District, until further orders. Major A. P. O'Connor has embarked for South Africa, and Major T. P. Woodhouse has arrived in the Eastern District for duty. Captain E. M. Pilcher has joined at the Royal Arsenal for duty. Lieutenant J. M. Sloan has assumed Medical Charge of the field hospital and troops at Barry Camp.

INDIA AND THE INDIAN MEDICAL SERVICES.

The services of Major R. J. Windle, R.A.M.C., are placed temporarily at the disposal of the Government of Bombay for employment on plague duty. Captain J. C. Lamont (Bengal), Professor of Anatomy, Lahore Medical College, is granted furlough out of India for eight months. Captain H. G. Melville (Bengal) is appointed to officiate as Professor of Anatomy, Lahore Medical College, until further orders. The services of the undermentioned officers are placed temporarily at the disposal of the Government of the North-Western Provinces and Oudh for employment on plague duty: Captain Merewether, 7th Bengal Cavalry; Captain Grant, 2nd Battalion 4th Gurkhas; Captain Stanton, 3rd Bengal Infantry; Captain Maxwell, 16th Bengal Cavalry; Lieutenant Hill, 34th Pioneers; Lieutenant Wheeler, 28th Punjab Infantry; Lieutenant McK. T. Hogg, 9th Gurkha Rifles; Lieutenant Preston, 40th Pathans; Lieutenant Sproule, 1st Bengal Lancers; and Lieutenant Barry, 2nd Bengal Infantry. The services of Lieutenant-Colonel A. Deane (Bengal) are replaced at the disposal of the Foreign Department. Lieutenant-Colonel Scott Reid goes as Administrative Medical Officer to the Central Provinces, relieving Colonel Hutcheson, who takes up his substantive appointment at Allahabad as Inspector-General of Civil Hospitals North-Western Provinces and Oudh. The Queen has approved of the retirement from the service of the under-mentioned officers:—Major Louis Tarleton Young, Bengal Establishment, and Lieutenant-Colonel William Henry Thornhill, Madras Establishment (post-dated to April 9th, 1899).

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain Charles H. Gough, Derbyshire Yeomanry Cavalry, to be Surgeon-Major; Surgeon-Lieutenant A. Phillips to be Surgeon-Captain.

YEOMANRY CAVALRY.

Wiltshire (Prince of Wales's Own Royal Regiment): Surgeon-Lieutenant E. Kingscote to be Surgeon-Captain.

VOLUNTEER CORPS.

Rifle: 3rd Volunteer Battalion the Queen's (Royal West Surrey Regiment): Surgeon-Lieutenant Josiah Field Hall resigns his commission, and is appointed Second Lieutenant. 1st (Brecknockshire) Volunteer Battalion the South Wales Borderers: Brigade-Surgeon-Lieutenant-Colonel C. P. Skrimshire resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the battalion on his retirement, vacating thereby his appointment as Senior Medical Officer to the South Wales Volunteer Infantry Brigade. 2nd Volunteer Battalion the Welsh Regiment: William Frederick Brook to be Surgeon-Lieutenant. 1st Tower Hamlets: Charles Ayton Marrett to be Surgeon-Lieutenant.

RECRUITS' TEETH.

We lately reported in our Parliamentary Intelligence [1] that 1767 recruits otherwise up to the standard physically were rejected last year on account of "loss or decay of many teeth." It seems a pity that the services of these young men who are ready and willing to become soldiers should be lost to the country in consequence of a perfectly remediable disability. The causes which conduce to bad teeth are not very well understood, but it seems tolerably certain that they may co-exist with what is commonly called a sound constitution. The fact of a youth being the subject of premature dental decay does not *per se* detract from his expectation of life. Provided he can masticate his food he should have as good a chance of reaching to old age as any of his contemporaries whose teeth remain intact. In cases where there is nothing else amiss with a recruit it would therefore, we should imagine, be worth while for the State to supply his deficiencies. The gain to the individual would be enormous, while the cost to the public purse would be but trifling. In addition to the initial outlay for false teeth and sets of teeth the Government would have to maintain dentists at all large stations at home and abroad, but as it is the need for skilled aid of this description is a crying one. Military surgeons cannot be expected to excel in mechanical dentistry.

The Queen has given to each of the under-mentioned officers in Her Majesty's Army Her Royal licence and authority to wear the Insignia of the Imperial Order of the Osmanieh or of the Medjidieh, as stated below, in recognition of their services in Egypt and the Soudan during the recent campaign:—The Order of the Medjidieh of the Second Class: Surgeon-General William Taylor, Medical Staff. The Order of the Medjidieh of the Third Class: Lieutenant-Colonel Arthur Thomas Sloggett, R.A.M.C. The Order of the Osmanieh of the Fourth Class: Captain Philip Henry Whiston, R.A.M.C. The Order of the Medjidieh of the Fourth Class: Captain James Willes Jennings, R.A.M.C., and Captain Henry Nason Dunn, R.A.M.C.

The War Office has decided that the unvaccinated wife or children of a soldier cannot be allowed to live in barracks or be conveyed to any foreign station at the public expense.

[1] THE LANCET, April 29th, 1899.

VACCINATION PROSECUTION. — At Exeter on May 12th a man who refused to pay a fine was sentenced to one month's imprisonment for non-compliance with an order to have his child vaccinated. The chairman of the magistrates remarked that it was for the good of the children and for the good of the country that they should be vaccinated.

Correspondence.

"Audi alteram partem."

"ASTHMA IN RELATION TO DISEASES OF THE UPPER AIR PASSAGES."

To the Editors of THE LANCET.

SIRS,—The discussion on this subject at the Laryngological Society of London will have been useful if it has done nothing more than elicit the interesting letter in THE LANCET of May 13th from Mr. Armstrong pointing out the connexion between gout and asthma. I am fully convinced of this connexion and I had prepared notes on this point for the discussion, but as chairman I waited until the end. The last speaker did not finish until past seven, the hour for adjournment, so I was compelled to call upon the openers of the discussion to reply without saying more than a few words. If I had had the opportunity I would have insisted on the importance of recognising the threefold origin of asthma. 1. The diathesis of the individual; in many asthmatics gouty symptoms are met with and many of the sufferers are neurotic. 2. Some morbid condition of the mucous membrane of the respiratory tract. 3. The direct exciting cause—i.e., the pollen of certain grasses, ipecacuanha, and certain odours, as of horses and cats.

In bronchial asthma the condition of the digestive tract also requires careful consideration. From my experience in the treatment of hay fever and asthma I am convinced of the necessity of paying attention to all the factors concerned in the production of the asthmatic state. Indeed, I regard asthma as nothing more or less than a symptom, and before any treatment is undertaken the cause of it should be investigated. It is only by the judicious combination of general and local treatment that we must look to relieve our patients of one of the most distressing complaints to which flesh is heir.

I am, Sirs, yours faithfully,

F. DE HAVILLAND HALL.

Wimpole-street, W., May 13th, 1899.

"THE PATHOLOGY OF THE PERICARDIUM."

To the Editors of THE LANCET.

SIRS,—Dr. Harry Campbell in THE LANCET of April 29th, 1899, criticises my paper on "Certain Points in the Pathology of the Pericardium" published in THE LANCET of April 22nd, 1899. As the title implied, my paper was upon the pericardium, and the respiratory vascular pump was only introduced to show the place of the pericardium in the general venous circulation. In the *Journal of Physiology*, 1897, will be found a paper by Leonard Hill and myself devoted to the vascular functions of respiration, and in that fuller account Dr. Campbell will find several of his questions answered by actual experiment.

By Section 1 of his letter Dr. Campbell would appear to imply that Leonard Hill and I claimed originality for the remarks which I made on the vascular functions of respiration. The fact that the respiratory movements assisted the circulation was not only taught by Cohnheim and before him but finds a place in elementary text-books of physiology. We do, however, believe that we were the first to demonstrate that the respiratory and other movements of skeletal muscles play well-nigh as essential a part as the heart in the circulation of the blood and that in the erect position the circulation cannot be carried on continuously without such contractions of skeletal muscles, and this is all that was claimed as original in my paper.

Dr. Campbell is of opinion that under ordinary circumstances respiratory movements do not aid the circulation to an appreciable extent. Respiratory waves appear on nearly every trace of a blood-pressure experiment even during quiet breathing, and when it is considered that during deep respiration in man the negative pressure of the thorax varies from – 1 to 2 mm. Hg. in expiration to – 30 mm. Hg. during inspiration it must be admitted that the thorax must exert a very considerable pumping action on the blood. The blood tends to be sucked into the lungs during inspiration, whilst the rise of pressure during expiration passes it on to the left heart as the way to the veins is barred by the pulmonary semilunar valves. A constant negative pressure, such as Dr. Campbell supposes, can no more be maintained in the pulmonary vessels when the capacity of the thorax is increased for a considerable time than it can in the alveoli. The air tends to flow into the alveoli and the blood into the pulmonary vessels until equilibrium is once more established and then further flow arising from the increased size of the thorax ceases. Where, however, the intra-thoracic pressure oscillates the blood is sucked in when the pressure is low and pushed on as the pressure rises, for the valves prevent regurgitation. In short, in a system provided with valves a periodic change of pressure at any part will produce a flow along the system in the direction of the valves.

In Section 3 of his letter Dr. Campbell states that I contend that the expiratory act favours the pulmonary circulation. It is not expiration by itself which favours pulmonary circulation but expiration after inspiration has sucked blood into the lungs. Hill and I have carried on the circulation of an animal (after the heart had stopped) by rhythmic and alternate compression of the abdomen and thorax.

Dr. Campbell states that "in such athletic exercises as running ..... the mean size of the chest is increased—inspirations being full and expirations shallow—and as breathlessness increases the latter becomes shorter than the former." Dr. Campbell here describes the condition which follows excessive and unwonted exercise in an untrained person whose heart and respiratory vascular pump fail. I can positively state that in a well-trained cross-country runner whose heart and respiratory pump are efficient for the exercise he undertakes inspirations are profound and expirations complete. The air exchange at each respiration is maximal. At the same time, I infer a maximum wave of blood is inspired from the abdominal veins to meet the air in the lungs and is expired into the left ventricle and aorta. In such a runner it will be found that the abdominal wall contracts and hardens with each *inspiration* (Section 5 of Dr. Campbell's letter). This reversal during exercise of the usual inspiratory condition of the abdominal wall is an observation, not a deduction. It may also be observed when a fall of blood-pressure is produced in an animal in the erect position and in cases of pericarditis with effusion.

(Section 4 of Dr. Campbell's letter.) Rhythmic descent of the diaphragm would push the liver in front of it without compressing it were it not more or less resisted by the remainder of the "muscular sphere" containing the great veins of the abdomen.[1] As it is the muscular sphere encloses and compresses: 1. The portal vein and its radicals emptying the blood through the liver into the hepatic veins which it will be remembered open practically at the orifice in the diaphragm for the inferior vena cava. The blood cannot return to the mesenteric arteries against arterial pressure. I have shown[2] that the pressure exerted is amply sufficient to empty the portal vein through the liver at each contraction of the muscular sphere. 2. The blood which reaches the capacious inferior vena cava from the legs is simultaneously pressed up into the right heart whence it cannot return when once past the tricuspid valve. Reflux to the legs is prevented by the valves in the femoral veins.

I trust that these remarks may satisfactorily clear up the obscure passages in my paper.

I am, Sirs, yours faithfully,

Finsbury-square, May 10th, 1899. HAROLD L. BARNARD.

"A CONTRIBUTION TO THE ANATOMY OF THE PERITONEUM."

To the Editors of THE LANCET.

SIRS,—I have read with considerable interest the article under the above title in THE LANCET of May 13th.

Case 1 is, I presume, that described by Mr. Mansell Moullin in a clinical lecture reported in THE LANCET of April 1st as a hernia into the "post-cæcal" pouch. As Mr. Keith points out, it is undoubtedly a case of hernia into the fossa iliaco-subfascialis (the fossa of Biesiadecki). This form of hernia is exceedingly rare. So far as I am aware only two previous cases are recorded. The first is described in a most meagre and unsatisfactory manner by Engel

[1] See figure, THE LANCET, April 22nd, 1899.
[2] Proceedings of the Physiological Society, 1898.

who pronounced it to be one of "retro-cæcal" hernia. Leichtenstern, with whom I agree, looks upon it as a hernia into the fossa of Biesiadecki. The second case was shown at the Pathological Society in 1889 by Dr. Mott. The specimen was examined and the diagnosis was verified by Mr. Treves.

With regard to Case 2 I am inclined to agree with Mr. Keith that this is an example of right duodenal hernia occurring into the fossa to which I have given the name "fossa of Waldeyer." The mention of two most important points is omitted from Dr. Smith's description. One refers to the position of the superior mesenteric artery and the other to the condition of the upper end of the jejunum. As I have shown elsewhere,[1] the fossa of Waldeyer, into which a right duodenal hernia occurs, is invariably bounded in front by the superior mesenteric artery. In the neck of the sac of this form of hernia, therefore, the artery (or its continuation the ileo-colic in the case of large sacs) always lies. When the sac in its enlargement reaches the ascending colon one of two things may happen. The colon may be pushed to the right and backward, as in a case recorded by Gerard-Marchant, or the sac may pass behind and appear on the outer side of the colon and there enlarging further may push the colon downwards and inwards to the middle line, as in Brösike's case and in Case 2. (In my work on Retro-peritoneal Hernia illustrations 18 and 19 show these dispositions of the colon.) The second point omitted in Dr. Smith's description has reference to the condition of the upper few inches of the jejunum. In one-half of the recorded cases of right duodenal hernia there was an adhesion of the jejunum to the anterior surface of the lumbar vertebræ. Such adhesion was present in two of Brösike's cases and he over-hastily concluded that it was essential to the production of a "parajejunal fossa," which formed the sac of the hernia. This "parajejunal fossa," however, I have shown to be nothing else than the fossa of Waldeyer under slightly altered circumstances. The fact of the existence of this adhesion in half of the recorded cases makes it necessary to describe two forms of right duodenal hernia—a "hernia mesenterico-parietalis para-*duodenalis*" and a "hernia mesenterico-parietalis para-*jejunalis*.

Specimen 1084 in the Guy's Hospital Museum is a very beautiful example of a right duodenal hernia. It is from a case of Dr. Moxon's and was described in the Guy's Hospital Reports, vol. xvi., 1871, p. 131, by Dr. Pye-Smith. A specimen in the St. Mary's Hospital Museum was described in the Transactions of the Pathological Society of London, vol. lx., 1893, page 67, by Mr. Jackson Clarke. It was removed from a patient under the care of Mr. Page. So far as I have been able to ascertain, these two and a specimen shown by me in my "Arris and Gale" lectures are the only ones in existence in England.

If Mr. Keith will be good enough to report upon the two points which I have mentioned I am sure that the work of future commentators will be much facilitated.

I am, Sirs, yours faithfully,

Leeds, May 13th, 1899. B. G. A. MOYNIHAN.

MALIGNANT PIGMENTED TUMOURS.

To the Editors of THE LANCET.

SIRS,—Dr. Rolleston in his most interesting lecture on "Secondary Melanotic Sarcoma of the Liver" published in THE LANCET of May 13th touches on many points of the greatest pathological interest. One cannot, however, help being struck by the fact that though he has carefully summarised the present state of our knowledge of the subject of primary pigmented tumours the most important links of the chain are yet wanting and really very little is definitely known of their true nature. The explanation of this is, I suppose, that until quite recently all pigmented tumours running a malignant course were believed to be sarcomatous and mesoblastic in origin. Recent observation has done much to disprove this. The two most usual situations for melanotic tumours to occur in are the skin and the eyeball. We now know that of those originating in the skin, some are sarcomata, others are carcinomata, while yet others appear to be intermediate between the two, possibly consisting of cells which in development have never become differentiated and cannot be said to belong definitely to epiblast or hypoblast.

In melanotic carcinoma the cells lining the walls of the alveoli are often so distinctly columnar in form and arranged side by side, that their epithelial character cannot be doubted. Clinically the distinction between the two is very marked. In sarcoma the primary growth is not as a rule very large; it is frequently distinctly encapsuled and is not prone to early ulceration. The rapid infection of the lymphatic glands and dissemination of the secondary growths throughout the body while the primary growth is yet small is notorious. The prognosis is very bad, so bad that, according to Erichsen, if the primary growth has attained the size of a filbert no local treatment can cure the patient although by relieving him of one source of infection it may retard death. In melanotic epithelioma the longer duration and slower progress of the growth, the early ulceration, the diffused brown pigmentation of the skin, and the late appearance of glandular and visceral infection by secondary growths, are leading characteristics.

Dr. Rolleston, dealing with this point, says: "It is not, as far as can be seen at present, a matter of any great clinical importance what the exact structure of a malignant melanoma is, though more careful classification in the future might be expected to show that there was some difference in the rapidity of generalisation." I would venture to differ from this and to suggest that the character of the growth would very materially affect the gravity of the prognosis. The reported cases of melanotic epithelioma show that the tendency to glandular and visceral infection is very much less and that early and complete removal ought to give a fair chance of recovery without subsequent recurrence.

There is one point of some interest to which I would refer. Mixed with the tumours and nodules in melanotic sarcoma there are sometimes black spots or patches which look as though they were mere deposits of pigment without any new growth; such are seen in the mucous membrane of the stomach, renal pelvis, and bladder. Lücke says that a careful examination always reveals the presence of cells in spots thus affected, but Thiersch relates a case of melanotic carcinoma of the skin in which at certain points nothing could be discovered but a diffused brown staining of papillæ the texture of which was perfectly normal. I suppose that in Dr. Wickham Legg's case the dark appearance of the face suggesting argyrism was due simply to this staining of the papillæ. It is common knowledge that the distribution of pigment in these growths is very capricious. The melanin particles are lodged in and among not only the characteristic cells of the tumour, but in and among those of its fibrous matrix and even in the walls of its vessels. It would be most interesting to know whether there is any clinical distinction with regard to intra-ocular melanomata. The majority of these growths are undoubtedly sarcomata arising from the uveal tract, but a few have been shown to be carcinomata taking origin from the epithelium of the ciliary glands. The other regions of the body where primary pigmented malignant growths have been described as occurring are the gums, rectum, liver, lymphatic glands, and, according to Virchow, the adrenals and vesiculæ seminales. I have little doubt that as our knowledge of these tumours progresses and every pigmented new growth is subjected to a searching and critical examination melanotic carcinomata will be found to be of more frequent occurrence among melanomata than is at present supposed.

I am, Sirs, yours faithfully,

Leicester, May 14th, 1899. GEORGE A. CLARKSON.

"MATÉ OR PARAGUAY TEA."

To the Editors of THE LANCET.

SIRS,—I have read with much interest Dr. Gordon Sharp's article on Maté in THE LANCET of April 1st. Having lived for some years amongst the gauchos of Argentina—the maté-drinkers *par excellence*—and having in my time consumed much maté myself I venture to dispute some of the conclusions and somewhat hasty generalisations, as they appear to me, arrived at by him after an experience with the herb of but one week only, during which time, moreover, he drank it prepared in a quite unusual manner and in conjunction with other ingredients not in themselves always easy of digestion, and added to the maté in proportions which are not stated. According to Dr. Sharp maté is not only a nauseous but a positively deleterious beverage. He records that the taste of it everlastingly remained, the appetite was lost, there was a strong inclination to vomit, a sense of drowsiness and languor was

[1] Retro-peritoneal Hernia (Baillière, Tindall, and Cox).

experienced with impaired capacity for physical exertion, and, worst feature of all, a distaste for tobacco accompanied these distressing symptoms.

Such is the gruesome tale of Dr. Sharp's brief experience with the herb. In trying to discover the cause of these untoward results several considerations present themselves. Was the maté employed itself sound, unadulterated, and fresh? Is it possible that Dr. Sharp by some coincidence was the subject of a bilious attack at the time of his experimentation? Lastly, might not the cream and the sugar which were added to the maté have been at fault or in excess? and, however this might be, is it wise to take any infusion "hot with cream and sugar" "immediately before or immediately after dinner"? I am no wild enthusiast for maté, but I have the Englishman's love of fair play and I do feel that at Dr. Sharp's hands the herb has not had fair play. It has never had a chance. Taken as it was by him it would have upset the stomach of the stoutest native of the Pampas. In fact, from what I know of the natives nothing would have induced any one of them to try it so unless as an emetic.

The gaucho invariably takes his maté without the addition of anything but hot water. It is "maté amargo"—bitter maté—*aut nullus* with him. I have seen it made many hundreds of times but never on a single occasion with cream or with cream and sugar. Moreover, in its preparation the maté-pot or gourd is no more "filled" with maté as Dr. Sharp states than the British tea-pot is "filled" with tea when tea is made. Right proportions must be observed with each. Nor should the maté be infused for five minutes before being taken. It is ready for drinking within a minute although prolonged infusion does not extract much tannin as with tea. The exact way in which maté is prepared by the native is as follows. The bombilla (*bomba*, a pump; *illa*, diminutive), the tube through which it is sucked, is first placed in the gourd or maté-pot; then the yerba is put in—about a table-spoonful is enough, rather more being required than if tea were being made. The gourd is then completely filled with water which has just ceased boiling—water actually boiling is said to scald the maté. The bombilla is moved as little as possible. The first sip through it usually brings into the mouth fragments of yerba; these are not swallowed (the first mouthful has generally to be expectorated which would rather militate against its introduction into our drawing-rooms). Directly it draws well the maté is handed round; to the chief visitor first who is only expected to take a few sips before passing it on to his neighbour. To wipe the mouth-piece of the bombilla after receiving it or before handing it on is considered very bad manners indeed, although the inclination to do so is to a novice very strong. When the maté-pot is empty the person in charge of the brew fills it again with hot water or makes a fresh brew, according to the number drinking it. It acquires a "flat" taste and no longer froths or gives out its fragrant aroma after being extracted with water two or three times.

That maté has great and deserved popularity in some parts of South America is of course undisputed. The gaucho considers meat, maté, water, and salt the necessaries of life. With tobacco in addition all his creature comforts are supplied. Maté serves him in place of vegetables, but it is also a favourite drink where vegetables and fruit are abundant and where little meat is eaten. Every resident in the "campo" and every traveller will testify to the refreshing, invigorating, yet sedative effects of maté. The baneful effects described by Dr. Sharp are quite new to me. Charles Darwin often mentions maté incidentally in his voyages and never disparagingly. It does not seem to have disagreed with him. Here is one passage from the "Naturalist's Voyage": "I reached the place of our bivouac by sunset and drinking much maté and smoking several cigarritos soon made up my bed for the night. The wind was very strong and cold, but I never slept more comfortably." At the end of a long day in the saddle to sit round the camp fire smoking and sipping maté is certainly by no means one of the least enjoyments in life. The length of time the gauchos are able to work on maté alone is well known, but I am not sure that their carnivorous habits do not materially assist them to do this. Men will rise at 3 or 4 A.M., take maté, saddle up and be on horse-back till after sunset, tiring several horses, galloping, shouting, lassoing, vying with each other all day long in feats of horsemanship, going through a day of 16 or 17 hours' hard physical work with ease and comfort, with no other refreshment throughout than maté, till the evening meal which consists of beef or mutton roasted over the fire. Could the British workman do as much on his beer?

Maté is most refreshing when taken after physical fatigue. It should not be taken with food. The gauchos wash down their meat diet with water. Maté they take by itself or after meals, sometimes before eating, while the "asado" is roasting on the spit. So far from its being antagonistic to tobacco it is exactly the opposite. This fact needs no emphasis from me. The only way to take it, in my opinion, is through the bombilla. A little is thus sipped at a time instead of being "gulped down" in bulk as Dr. Sharp took his. The mere fact of sipping is sedative and is analogous to smoking. Maté made and served in cups and saucers as tea and coffee are generally in this country and taken at mealtimes is a mistake. Taken so it is decidedly inferior to either and can never compete with them successfully. In the towns of South America it does not replace tea and coffee and is but little used. Personally, I do not think that it will ever become very popular in this country. The taste for it has to be acquired; it has so essentially a flavour of its own. All my attempts to popularise it in my own household have met with the most signal failure, where, to be perfectly frank, it is generally alluded to as "that horrid maté," and I am considered to take it only from sentimental motives. That anyone can possibly *like* it is not credited for a moment.

The truth of the matter appears to me to be that we have little need for it here in England. On the vast prairies of South America staying power in man and horse is a great desideratum, the distances to be traversed are often great, and food for man can be procured often only at long intervals. Hence maté, which can be easily made wherever there is water and which has certainly great sustaining power, is an invaluable commodity. Even to a "gringo" or foreigner the relish for it there comes soon, for it is often "Hobson's choice" and it may easily fall out that maté and cigarettes are the only two courses on the bill of fare. Here in crowded England where different conditions obtain and the stomach is rarely empty for more than 30 minutes at a time maté seems to me nearly as out of place as the lasso or the bolas. Tea and coffee meet all the requirements of the case. The neurotic, the dyspeptic, *et hoc genus omne*, will seek benefit from maté, in my opinion, in vain. Here I am quite at one with Dr. Sharp. It is no beverage for such. The British workman is too wedded to his beer and his groove is too narrow and set for him to dream of any change to a non-alcoholic drink. Not easily are national habits eradicated and replaced by others. But there are times even in this country *sub altero Jove* when to a maté-drinker, were it obtainable, maté would be welcome—after exercise in the open air, weary, say, with pulling against the stream, or with cycling over indifferent roads; but to the novice even then I think it would appeal in vain unless, as I have hinted, it were "Hobson's choice." A cup of tea or a whisky-and-seltzer would always be most formidable rivals.

I am, Sirs, yours faithfully,

J. H. DAUBER, M.B. Oxon.

Charles-street, W., 1899.

"A CRITICISM OF THE MORE COMMONLY EMPLOYED TESTS FOR ALBUMIN IN URINE."

To the Editors of THE LANCET.

SIRS,—With regard to Dr. Colquhoun's letter in THE LANCET of May 13th, 1899, may I be allowed to state that my reasons for not inserting the details of the processes by which my results were attained were twofold—first, that my article was intended for the general reader rather than the chemist and was already somewhat lengthy; secondly, that my conclusions were only the incidental product of an investigation into the subject of albuminuria, the details of which I hope to be able to publish later?

In the interval since the appearance of Dr. Colquhoun's article on Carbolic Acid as a Test for Albumin in THE LANCET of May 6th, 1899, I have made use of the test, by the side of the reagents which I usually employ, in some 20 specimens of urine and with several artificial dilutions of blood serum. While acknowledging that in Dr. Colquhoun's hands it may give the satisfactory results which he claims for it it does not seem to me to have any advantages over salicyl-sulphonic acid, Millard's reagent, and several other well-known tests.

Owing to the large amount of carbolic acid held in solution by the absolute alcohol and the ease with which the alcohol evaporates crystals of carbolic readily separate out and render the fluid not only difficult of transport but also awkward to work with. It is certainly a delicate test for albumin, but not so delicate as salicyl-sulphonic acid, Millard's reagent or Tanret's solution. Great delicacy is not, however, an advantage in clinical work and, as I have pointed out, is a serious objection to salicyl-sulphonic acid as a routine test The precipitate produced by carbolic acid and alcohol in albuminous urine is not easily seen, especially where it is faint, owing to the tendency of the urine and the reagent to mix. Further, the milkiness produced by the emulsification of the phenol by the water of the urine is a serious drawback. Nucleo-proteids give a well-marked reaction and this, unless Dr. Colquhoun has excluded it, may perhaps account for the albumin in small quantities which he has found in such a large proportion of his patients. Although filtration will remove the obvious "mucous" cloud it does not remove the nucleo-proteids.

While allowing that Dr. Colquhoun's method of estimating the relative delicacy of his test has the claim of simplicity I think that in using egg albumen and from it drawing inferences as to the reaction of the albumin found in urine he is making an assumption for which at present there is no justification. In fact, as Dr. Colquhoun himself mentions, in coagulating temperature and its reaction with ether egg albumen differs from the albumin of serum, and in view of these facts we cannot assume that their reactions with other reagents are the same. It therefore seems to me that in spite of the greater difficulty and complexity of the method with care a more truly accurate estimation can be made by examining albuminous urines and then separating out and weighing the albumin. Urine is such a highly complex and variable fluid that inferences drawn by comparison from artificial solutions are, I think, to be avoided as far as possible until we know much more than at present of the nature and properties of its constituents.

I am, Sirs, yours faithfully,

P. J. CAMMIDGE.

St. Bartholomew's Hospital, E.C., May 15th, 1899.

To the Editors of THE LANCET.

SIRS,—I beg to make a correction in my paper and also to add an amendment. The word "saturated" escaped my scrutiny. As a matter of fact the solution which I have used for the last six months consisted of about five parts of saturated solution of carbolic acid in absolute alcohol to three parts of absolute alcohol. The test as I described it is a slow one and perhaps confusing to those who have not experimented on solutions of albumin. An immediate result is obtained by warming the fluid to be tested to about 70° C. and then pouring the carbolic solution to the amount of about one cubic centimetre on the surface from a pipette so that it penetrates the albuminous fluid to some depth before rising. The warming may be continued so as to avoid all milkiness from separation of carbolic acid. A pearly milkiness due to albumin at once appears and is quite diagnostic. The test is quite as delicate as I described it and is worth mastering.

I am, Sirs, yours faithfully,

May 15th, 1899. WALTER COLQUHOUN.

"THE CENTENARY OF THE CHARTER OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND."

To the Editors of THE LANCET.

SIRS,—It is sincerely to be hoped that your appeal to the Council of the College to make some recognition of the Members a part of the centenary celebration will meet with a response. As you say, nothing could be more fitting than such a step at the present time and it cannot be "beyond the wit of man" to devise a plan by means of which the Members may be accorded a share of representation without interfering with the just rights of the Fellows. The scheme of the Members put forward two or three years ago was rejected by the Fellows and Council; let the latter now try their hand and their proposals will be received with respect by all. There is nothing whatever irreconcilable in the attitude of those Members who have taken up this question. They consider that their claim is a just one in view of the constitution of the College, but they are quite willing to accept any reasonable proposals and to leave the settlement of details to the Council.

I am, Sirs, yours faithfully,

May 16th, 1899. W. G. DICKINSON.

THE FEES OF MEDICAL WITNESSES.

To the Editors of THE LANCET.

SIRS,—It is satisfactory to find from the leading article in THE LANCET of May 6th that attention is at last being called to the inadequate fees paid to medical witnesses in criminal courts. The members of no other learned profession would consent to leave their work and possibly travel many miles for the sum of a guinea a day, second-class return railway fare, and 2*s.* 6*d.* a night. I have occasionally to go to an assize town 50 miles away and have been detained there for a week or more. The fees earned have not paid my expenses. My patients have been left in charge of a locum-tenent to whom I have to pay three guineas a week. Irrespectively of operation cases, the total loss on the week's work has been about six guineas. Since this arrangement affects so slight a proportion of the people of this country it is doubtless deemed a small thing by the Government, but it is a very real hardship and heavy burden on a class of men whose services in the detection of crime are of value to the State. It is deeply to be deplored that the Home Secretary does not see his way to help us, more particularly as the amount of increase in the fees would be so small a sum in the aggregate. Surely two guineas a day is the very least that ought to be offered for the exclusive service of an expert who often makes more than twice that amount at home. I sincerely trust that you will kindly continue to help us in the matter.

I am, Sirs, yours faithfully.

May 17th, 1899. PSEUDONYM.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Never-ending Sewage Difficulty.

THE adjourned Local Government Board inquiry into the bacterial sewage purification scheme of the Manchester Corporation was closed on May 1st, and the next day the Commissioners, Major-General Crozier and Dr. Theodore Thomson, paid a visit of inspection to the works at Davyhulme and the corporation land at Carrington and Flixton. The application of the corporation was for sanction to borrow £160,000 to cover the estimated cost of the scheme. This inquiry occupied two days in January, when the evidence of experts with regard to the bacterial scheme was given, and it was then adjourned to enable details to be prepared and further experiments made at the Davyhulme works. Though the scheme is of immense consequence to Manchester, the interest it excites is not merely local, but widespread, and it is said that authorities throughout the country are watching its progress in the hope of benefiting by her costly experience. Dr. Percy Frankland and Mr. W. H. Perkin, jun., Professor of Organic Chemistry at Owens College, both said that the experiments continued to be highly satisfactory and that there could be no question that the scheme was capable of producing a satisfactory effluent. Mr. Gilbert J. Fowler, the resident chemist at the works, gave elaborate detailed evidence as to the weekly results of the experiments with the bacteria beds. He said that the effluent at its worst improved the quality of the water of the Ship Canal. At present, however, that might easily happen. Dr. Thomson said that Mr. Fowler was to be congratulated on the amount of labour involved in the preparation of his evidence—"the work contained in the documents and tables upon which it was based was really monumental." The report will be anxiously awaited. The summons against the corporation for penalties for fouling the Irwell and Mersey was again adjourned by Mr. Yates at the Strangeways County Court from May 4th to 30th. At the last meeting of the City Council Sir Bosdin Leech, chairman of the Rivers Committee, spoke of the difficulties arising from the pouring into the drains of noxious fluids from various manufactories "at irregular intervals in large quantities, sometimes acid, sometimes alkaline, and often charged with chemical or other matter that came down without warning and necessitated an immediate change of

treatment." Some of the manufacturers in the out-townships, now included in the city, were before incorporation under the jurisdiction of the Mersey and Irwell Joint Committee, which obliged them to purify their trade effluents. But now that the city drainage-scheme has extended into the out-townships these ingenuous occupiers of those works "had applied to turn their effluent into the city sewers for convenience and in order to avoid the jurisdiction of the Joint Committee." Regulations have been made to meet this difficulty, but these trade effluents will need constant watching. Between the Local Government Board on the one hand, the Mersey and Irwell Joint Committee on the other, and the difficulties somewhat improperly caused by the producers of various trade effluents, the Rivers Committee, or the corporation, recall to mind that patient animal which though strong was crouching between two burdens, only in this case the burdens are more than two, and Sir Bosdin Leech somewhat pathetically told the Council that the Rivers Committee were not on a bed of roses—"a bacteria bed"—some heartless councillor interjected. They had to serve, he said, not two but four masters: first their own citizens who had rejected the culvert scheme, then they had the Local Government Board holding the purse strings and insisting on the 30 years' old land treatment, then a section of the Council still clinging to the culvert scheme and harassing the Rivers Committee on every possible occasion, and, lastly "the Joint Rivers Board, who, seeing the committee bound hand and foot, insisted on flogging the willing horse who would go if he could. Looming in the distance was the Royal Commission, whose decision might revolutionise everything and introduce new principles for dealing with sewage. Like Job, too, the Committee were troubled with hosts of kind friends who thought they could easily settle the sewage question." Probably the tangle in Manchester is greater than in most places, but till this transition period is passed similar difficulties will often be encountered.

May 15th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh Town Council.

AT a meeting of the Edinburgh Town Council held on May 9th it was decided that Bailie Pollard should be sent as a representative of the council to the Congress to be held in Berlin in May on the subject of Tuberculosis. A letter was read from Bailie Pollard (who was absent) intimating that he intended to go at his own expense. The Lord Provost expressed the indebtedness of the town council to Bailie Pollard for the great amount of time and trouble which he had taken in connexion with public health matters and more especially with the question of tuberculosis.

The Sanitary Condition of Edinburgh.

The Edinburgh Town Council has just received from Dr. Williamson, the chief sanitary and market inspector of the city of Edinburgh, an exhaustive report of the work done in his department since May last, at which time the department was constituted. At that time 13 assistant sanitary inspectors had been appointed, nine of whom were employed in making door-to-door inspections in quest of insanitary conditions, while the remaining four had been devoting their time to inspection of dairies, bakehouses, and lodging-houses, and to the carrying out of the provisions of the Factory and Workshop, Shop Hours Acts, and Food and Drugs Acts. 10 of the present staff hold certificates in sanitary science and most of the others were preparing to obtain these. The greater part of the work of the department had consisted in inquiry into complaints regarding nuisances of a general nature. During the year 686 cases of overcrowding had been discovered. The worst cases of this occurred, as was to be expected, in the St. Giles and Canongate districts. The reason of the overcrowding was partly to be found in the fact that there was not a sufficient supply of small houses with low rents, but it was also due to the character of many of the inhabitants of the slums in whose case nothing but compulsion and the dread of heavy penalties would be efficacious in preventing the nuisance. The number of common lodging-houses in the city was 33, with accommodation for 2829 lodgers. There were 1239 workshops and 245 bakehouses, of which latter 162 were underground. In 278 cases notices had been served for the cleansing of workshops. Laundries were rapidly on the increase, being now 56 in number. Observations were being made as to the temperature and other conditions under which the work in these places was being carried on and attempts were being made to diminish the warmth and dampness of the atmosphere in them. Under the Food and Drugs Act, of 77 samples which were procured nearly 50 per cent. were of doubtful quality or adulterated. As regarded the Margarine Act, it had been found that great laxity existed in carrying out its provisions. The number of ice-cream shops seemed to be somewhat on the increase. These had been closely supervised. The chief objections urged against these shops were of a moral nature and the inspector had become impressed with the desirability of closing them earlier in the evening and if possible on Sundays. There were 468 dairies at present on the register in the city and in most of these the conditions had been found satisfactory. Of the 230,000 animals slaughtered during the year 523 carcasses had been condemned and seized in the slaughter-house, the predominant disease being tuberculosis. Over 6000 visits had been paid to butchers' and other shops during the year. Attention had been also directed to the filthy condition of the boxes in which fish were conveyed to the city. The weekly fat stock sales had been regularly supervised and 11 live animals affected with tuberculosis had been seized. Every byre in the city was inspected once a fortnight. The inspector had recently thought it necessary to draw the attention of the council to the dangers which might result from the use of milk from recently calved cows and special attention was at that time directed to the difficulty of supervising the milk-supply from such animals during their stay in the cattle market. From inquiry in other districts he had found that the matter had not hitherto received the attention which it deserved.

Death of John Moir, M.D., F.R.C.P., F.R.S. Edin.

At Edinburgh on the morning of May 15th Dr. John Moir died at the advanced age of 91 years. Dr. Moir's father, a naval surgeon, was taken prisoner in the Napoleonic wars and was imprisoned in Verdun, where his wife joined him and where the son was born. After the release of the parents the father settled in practice in Edinburgh, where his son John began the study of medicine. Dr. John Moir graduated in 1828 as Doctor of Medicine and became assistant to Professor Hamilton who was Sir James Simpson's predecessor in the Chair of Midwifery in Edinburgh University. After Professor Hamilton's death and before the appointment of Sir James Simpson Dr. Moir conducted the class. His practice in the city was a large and high-class one and until a few months before his death he still retained some of his patients. Dr. Moir was the father of the Royal College of Physicians of Edinburgh and had occupied the positions of President of the Obstetrical Society and of the Medico-Chirurgical Society. He was the only surviving original member of the Medical Missionary Society. Dr. Moir was twice married and is survived by a widow, two sons, and two daughters.

Death of James Rae, M.D. Aberd., of Stirling.

The death took place at Stirling, on May 15th, of Dr. James Rae, retired surgeon, who was a survivor of one of the Arctic expeditions in search of Sir John Franklin. He saw most of his service in the navy and at one time held the post of Deputy-Inspector-General of Hospitals and Fleets. Since his retirement from practice his time has been largely spent in microscopical investigations.

Professor Cossar Ewart's Experiments.

At the monthly meeting of the directors of the Highland and Agricultural Society held in Edinburgh on May 3rd the committee appointed to consider Professor Ewart's experiments in horse-breeding reported that they had visited Penicuik and that they recognised the great scientific interest and practical value of the work carried on. The committee suggested that the experiments should be continued with powers to propose to other bodies that they should join with the Highland Society in contributing to their continuance for some years. The report was adopted and it was remitted to a sub-committee to arrange for an exhibition by Professor Cossar Ewart of his hybrid horses at the show of the society which was to be held in Edinburgh in July.

Aberdeen Hospital Saturday.

The committee in charge of this movement have arranged

for a demonstration to take place in Dublin Park on June 24th. A detachment of the New South Wales Lancers who lately arrived at Aldershot from Australia will take part in the sports and the proceeds from the gala are expected to be increased thereby.

Aberdeen Parish Council and the Vaccination Question.

No allowance for the "conscientious objector" is made in the Vaccination Acts for Scotland and the Scotch Local Government Board have again intimated to the city parish council, who have assumed a defiant attitude, that unless a distinct assurance is now forthcoming that defaulters will immediately be prosecuted the Board will proceed against the parish council as previously instructed. The parish council, however, have—but by a majority of one vote only—resolved to adhere to their former resolution, which was recently referred to in the columns of THE LANCET.

The Health of Aberdeen.

The measles epidemic in Aberdeen seems now to be nearly over, the number of fresh cases reported for each of the past two weeks having been only 26. The epidemic has been perhaps the most widespread which has occurred in the health history of the city. During January of this year there were 1647 cases with 25 deaths; in February 2177 cases and 34 deaths; in March 1996 cases and 45 deaths; and in April 497 cases and 20 deaths, being 7·8 of the total mortality for the month. Last week 11 fresh cases of diphtheria and 11 of typhoid fever were reported, being an increase on the preceding week, and there have lately been two sporadic cases of small-pox, one in Aberdeen itself and another a little beyond the city boundary.

May 16th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Health of Dublin.

OWING doubtless to the prevailing easterly winds the number of cases of lung disease is at present greater than usual. At the last meeting of the Managing Committee of Cork-street Hospital held on May 11th the registrar reported that the number of cases of pneumonia admitted during the last month was much above the average, though few of them had proved fatal. The number of cases of diphtheria had also increased.

The Richmond District Lunatic Asylum.

The last meeting of the governors of the Richmond Asylum took place on May 11th when votes of thanks were passed to the medical superintendent, Mr. Conolly Norman, and to the other members of the medical staff.

Legacies to Dublin Hospitals.

The late Mr. James Weir recently left by his will large legacies to various hospitals and charitable institutions in Dublin and its vicinity. The total sum—£120,000—is to be divided among certain institutions fixed upon by the Vice-Chancellor as being included within the terms of the will, the proportion to be allotted to each being left to the absolute discretion of the three trustees under the will.

Belfast Asylum.

On the occasion of the last meeting of the board of governors of the Belfast Asylum (May 8th) under the old *régime* (in future the management will vest in a committee of the city council) the medical superintendent, Dr. Graham, read a very interesting report. Referring to the old board he said that they deserve every praise for the recognition of the fact that the aim of alienists to-day in the treatment of the insane is to get them away from all excitement and noise and to place them in buildings in suburban districts, surrounded with pleasant foliage and green fields. Such an opportunity has been given by the foresight of the governors in the purchase of the magnificent demesne of Purdysburn for the insane of Belfast. Under such conditions as exist there improvement must be more rapid and permanent, especially in the morose and melancholic cases. Patients who in the narrow confines of the old asylum had to be watched will at Purdysburn enjoy a more healthful freedom. In the recognition of such facts the late board of governors has shown how progressive its members were. It is, as Dr. Graham points out, the duty of the new board to provide accommodation for those mentally ill. They have the opportunity of building an asylum which shall be a modern hospital for the treatment of brain diseases. The patients must be given every chance of recovery—that is, they must be placed where excitement is avoided, freedom of movement allowed, occupation available, and hygienic laws observed in their fullest extent. In a word, an asylum is a hospital for diseases of the brain and Dr. Graham sketches how such an institution should be constructed. The old asylum is quite out of date. No mental cases should be placed in workhouses as formerly was done in Ireland. Further, a colony must be established for that most unfortunate class of patients—epileptics. To confine such people, who except when the fit is on are often refined, honest, and willing to do what work is possible, is a relic of the past inhuman treatment of the mentally afflicted. Dr. Graham refers to the existence of such colonies in the United States and at Chalfont St. Peter in England. Finally, Dr. Graham speaks of the importance of the after-care of discharged patients who are often homeless and helpless. They need the care of friends and the oversight of a physician and he recommends the formation of an unobtrusive association of ladies to look after the needs of such cases. Dr. Graham's report, from which I have culled a few points, is of great interest. Free from the usual statistics of such often bald reports, it is suggestive, eloquently written, and has been received most favourably by the public. It is to be hoped that every one of the new board of governors will carefully study its contents.

The Belfast Corporation Bill.

A curious hitch has arisen in connexion with the new Bill which the corporation is at present promoting in reference to Clause 46, which seeks powers by which the corporation may compel owners of small houses to establish proper sanitary facilities in their properties which have no back passages. It refers specially to the 20,000 houses in Belfast which were allowed to be built without back passages. The clause as drawn would allow the corporation, if it thought fit, to lend the owners of such property part of the money required to establish proper sanitary conveniences. Lord Morley, it appears, has so amended the clause as to make it apply only to houses erected after the passing of the Act and, further, has so altered it as to make it compulsory on the corporation to advance on loan two-thirds of the cost of the alterations ordered. These alterations would make the clause of no effect, as it must be, to be of any good, retrospective. The Parliamentary agents of the city corporation have advised that the clause should, under the circumstances, be dropped, but at a meeting of the corporation held on May 3rd it was decided to refuse to take this advice or to yield to Lord Morley's amendment.

Belfast Board of Guardians.

At a meeting of the Board of Guardians of Belfast held on May 9th the assistant clerk made an announcement which has astonished the unfortunate ratepayers. It would appear that in estimating the expenditure for the year ending March 31st, 1900, they started with a deficit of £9000. This is astounding, considering that a supplemental rate (which, indeed, the unfortunate taxpayers could never very clearly understand) of 5*d.* in the £ was made in order to give the new board a clean sheet on April 1st. Out of the £9000 there were £1100 to be deducted as the balance of sanitary accounts which were not adjusted by the Local Government Board; £2483 from Parliamentary grants; £600 from workhouse buildings for which a loan was in progress of negotiation; £100 which the Veterinary Department owed them in respect of salaries, and £87 in respect of the hospital, the total being £4400. That left £4600, but a great deal of it could be explained by the regrettable epidemic of typhoid fever. With reference to the lunatics the assistant clerk said that the corporation had not seen their way to take the preliminary steps to save the ratepayers £2000 a year. If they had taken over the lunatic department of the house they would be entitled to a capital grant of 2*s.* a week. That stood as a positive loss to the ratepayers of £2000. The Finance Committee of the City Corporation of Belfast have been considering this urgent matter. It means that the total requirements of the Belfast Poor-law Union for the year ending March 31st, 1900, will be £93,721 6*s.* 3*d.* This has to be raised by the three county

councils involved owing to the situation of Belfast—Antrim, Down, and the city. The share falling on the city of Belfast, according to the calculation, is £87,409 5*s.* 9*d.*, but if we add to this the deficit above mentioned of £4600 there will roughly be a demand on the city rate of £90,000, and this will necessitate a rate of 1*s.* 8*d.* in the £. This is an increase of about 6*d.* This beats the recent increase of the town rates, which was about 14 per cent., while this increase of 6*d.* on the poor-rate is a jump of 42 per cent. The curious point about the matter is that this is not an increased demand. How, then, did the guardians spend even more than this and only levy a 1*s.* 2*d.* rate? This will soon be cleared up as the Finance Committee of the corporation have demanded from the clerk of the union a copy of the guardians' estimate for last year under the same heads as given in the present demand in order to compare the two.

Glanders in Belfast.

Between September, 1898, and the present date, several cases of glanders having occurred, especially among horses owned by cardrivers using the same "hazard," the Veterinary Department of the Privy Council, Dublin, have instructed the authorities to disinfect the stands, and if necessary to close the drinking fountains used by animals, and to take any other required precautions.

The Royal University of Ireland.

The result of the election by convocation to the Senate of the Royal University was declared on May 9th as follows:—Dr. Walton Browne, 320; Dr. O'Sullivan, 204. Dr. Browne was thus elected by a majority of 116. At a meeting of the Senate held on May 11th the debate on The O'Conor Don's motion, adjourned from the last meeting in October, was resumed, but by leave of the Senators the amendment and motion were both withdrawn. It will be remembered that The O'Conor Don proposed a resolution to the effect that university education in Ireland was in an unsatisfactory condition.

The Belfast School of Medicine and the Royal University of Ireland.

At the recent medical examinations of the Royal University of Ireland students from Belfast have been most successful. At the M.B. examination Mr. John W. Megaw, B.A., was awarded first class and an exhibition of £40, while Mr. Robert Steen gained a second class and an exhibition of £25. Both these gentlemen came from Belfast and they were the only candidates who obtained honours. At the Second Examination in Medicine Mr. Walter Phillips, B.A., of Belfast, was the only candidate in the honours list. He obtained an exhibition of £15 and second-class honours. At the Third Examination Mr. O'Leary of Cork was awarded first-class honours and an exhibition of £30, while Mr. David M'Mordie, B.A., of Belfast obtained second class and an exhibition of £20. Taking all the medical examinations (the second and third and those for degrees) five candidates were put on the honours list; of these four were from the Belfast School of Medicine and of the five there were two first classes from Belfast, one from Cork, and two second classes from Belfast.

May 16th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The International Congress of the Medical Press.

THE date of this congress, concerning which I gave some details in my last letter, has been fixed for July 27th, 28th, and 29th, 1900.

The Treatment of Tuberculosis of the Testicle.

At the meeting of the Society of Surgery held on May 3rd M. Tuffier read a paper in which he showed how during the last 15 years the treatment of tubercle of the testis had been modified from a surgical point of view. This was chiefly owing to two factors—the slight degree of infection so often noticed in visceral tuberculosis and the very important part played by the internal secretion of the testicle as pointed out by Brown-Séquard. In 1885 M. Tuffier, following the lead of Guyon and Verneuil, always practised ablation of the testicle as soon as he had diagnosed a localised tuberculosis in this gland for fear of the infection becoming disseminated. Observations on a good many cases, however, showed him that castration did not always do away with generalisation of infection, especially in patients of tuberculous predisposition, and also that a number of patients suffering from tuberculosis of the testis and even of the prostate who were not castrated, either because they refused operation or because the surgeon considered it too late to interfere, remained in a stationary condition as far as their tuberculosis was concerned. M. Tuffier cited the cases of some patients whom he knew to have suffered from definite tuberculous lesions for 15 years but whose general health remained excellent, without any tendency to generalisation of tubercle. M. Tuffier now hardly ever does a complete castration. In those rare cases where there exists a hypertrophic form of tuberculosis with very large caseous nodules he performs a resection accompanied by scraping; if the epididymis is affected he partially resects that also. Partial operations are much to be preferred to complete ablation which does away with the benefit of the internal secretion. Such operations are scraping and cauterisation with a thermo-cautery. M. Tuffier only practises castration in cases where the organ is very large or causes inconvenience from pain or the presence of profuse suppuration. He removes not only the testicle but also the unhealthy skin of the scrotum and the whole of the tunica vaginalis, for 10 years ago he demonstrated that hydrocele fluid from a case of tuberculous testis contains virulent tuberculous poison.

Legal Measures for Facilitating the Treatment of Morphiomania.

At the meeting of the Society of Legal Medicine held on April 17th M. Lutaud said that a morphiomaniac was a weak-minded person who would promise anything and everything but never kept his promise. He therefore was a fit subject to be put under control. But such control was illegal. It was true that certain *maisons de santé* got over the difficulty by making the patient sign a declaration that he would not go away until he was cured, but such declaration had no legal force whatever and if the patient wished to go he could not be prevented. M. Lutaud considered that it would be as well to add a clause to the law of 1838 making it legal to place morphiomaniacs under control if they applied for such a measure themselves. M. Mottet, although thinking this suggestion sound, did not consider it would be possible to carry it out. He excepted, however, those suffering from cocaine mania, for they were often dangerous owing to their hallucinations. M. Segnet thought it would be possible to diminish the number of morphiomaniacs and cocaine maniacs by making it punishable for druggists to supply such with the materials for their vice. M. Bouchereau retorted that morphiomaniacs had no hesitation in forging the signature of a medical man in order to procure morphia. As for the proposal of M. Lutaud it went against the law of 1838 which forbade medical men to keep under control lunatics who were not dangerous to other persons.

Electricity in the Treatment of Gout.

At the meeting of the Academy of Sciences held on May 1st M. Guilloz pointed out that the indications in the treatment of gout (a disease which, with M. Bouchard, he considered to be an auto-intoxication following upon impaired nutrition and so leading to uratic deposits in the tissues) were to improve the nutrition and activity of the tissues as much as possible so as to aid elimination of waste substances. M. Guilloz had tried the application of electricity in certain patients suffering from obesity, who without any alteration in diet lost about one kilogramme in a week. The nitrogenous output was not increased, proving that the loss came from the fat and hydro-carbons showing greater tissue activity. M. Guilloz has tried this treatment in 75 cases of gout. He uses cataphoresis of lithium to the affected joints and also high frequency currents both locally and generally. The method has been found to relieve pain, improve the movement in the affected limbs, and influence the general health. It has not as yet given any good results in cases of chronic rheumatoid arthritis.

Commercial Sterilisation of Drinking-water by Means of Ozone.

At the meeting of the Academy of Sciences held on April 24th M. Marnier and M. Abraham drew attention to the fact that their researches on the sterilisation of water on a commercial scale by means of ozone dated back to 1895. The experiments are carried out at the laboratory of technical micro-biology at the Pasteur Institute and at the physical laboratory of the normal high school. Through the good offices of the municipality of Lille the

two observers have been enabled to try the process on a large scale and they were also greatly helped by an engineer, Mons. M. X. Gosselin. The ozone is discharged into a tower built of masonry where it comes into contact with the water circulating in the tower. A previous filtration has eliminated the grosser forms of impurity. All pathological microbes are destroyed, the only microbe which resists being the bacillus subtilis. This microbe, though harmless to man and other animals, possesses extraordinary powers of resistance, being unaffected by steam under pressure at a temperature of 110°C. By this process no foreign element is introduced into the water which can have any prejudicial effect on the health of persons who may afterwards use it. On the contrary, owing to the increase in the amount of nitrates and the diminution in the quantity of organic matter, water treated by this method is less liable to future contamination and is consequently less liable to alteration.

May 16th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Medical Women.

THE German Federal Council has decided to admit women to the State examinations in medicine, dentistry, and pharmacy. It was mentioned by me on a former occasion[1] that according to current rumour the question would be settled in connexion with the forthcoming alterations in the State examinations, but the Federal Council without waiting till the new regulations came into force has resolved that women may be admitted at once and under the present regulations. Moreover, the Council ordained that when in any German university the rules and by-laws did not contemplate the matriculation of females the curriculum classes attended by them as exceptional students (*Gast-hörer*) were to be counted to them as if they were fully matriculated students. Undoubtedly the above decree is the most important of all the steps hitherto taken in this matter, but there are still some difficulties to be overcome before female medical students can fully profit by their new privilege. The curriculum includes a good many lectures, practical courses, &c., to which women have hitherto not been admitted by the respective professors and the Federal Council has no authority to compel the members of the Faculties to admit them. There is no possibility of passing the State examination without having worked in the dissecting-room, and in Berlin, for instance, the professor of anatomy (Dr. Waldeyer) has declined to allow female students to work together with those of the opposite sex. He considers that there should be special courses of anatomy for females, and until such courses are instituted female students in Berlin will not be able to produce certificates of a full curriculum. This and other obstacles will for the present prevent the overcrowding of the medical faculties by women, but it is certain that the removal of the last barrier is only a question of time.

The Practitioners' Association.

The annual meeting of the delegates of the Practitioners' Association (*Aerztevereins-Bund*) was held this year in Dresden, Dr. Aub of Munich, the president of the association, being in the chair. The members were welcomed on behalf of the State and the municipal authorities and it was noticeable that the president in replying to the address of the representative of the Prussian Government rather ironically said that the meeting was very much obliged to the Government for its kindly words, but that the delegates of the German practitioners would rather hear of Governmental measures by which the condition of the medical profession might be improved. The principal subject of this year's proceedings was the "free-choice system" (*freie Arztwahl*) in sick-clubs which has been already described in these columns.[2] This system has been introduced in a good many clubs to the chagrin of their medical officers and to the great satisfaction of the younger medical men who had not been fortunate enough to obtain club appointments. It has, however, been a great drawback that the system of medical aid in these clubs was variable and depended entirely upon the will of the committee or upon the general meeting of the clubs so that in one year the free-choice system and in another the system of appointed medical officers with fixed salaries might be in force, the consequence being that the medical men engaged in club practice under any of these systems were never sure how matters might turn out next year. One group of medical practitioners therefore desired that the free-choice system might be made compulsory by law, whilst others were of opinion that it would be better left to agreement between the medical men and the clubs. After a very long and animated discussion the meeting adopted a resolution to the effect that the clubs ought to be compelled by law to admit every practitioner desiring to engage in club practice, that contracts between clubs and medical men ought to be controlled by the medical chamber, that persons with incomes of more than 2000 marks (£100) ought not to be admitted as members of workmen's clubs, and that no unqualified man ought to be allowed to give medical attendance to club members. This resolution was passed by a great majority, 107 delegates voting for and 29 delegates against the motion. The discussion on unqualified practice which had been placed on the order of the day was postponed till next year's meeting.

A New Medical Journal.

A new medical weekly—the *Deutsche Aerzte-Zeitung*—made its appearance on May 1st. The editor, Professor Stadelman, formerly of Dorpat, now of the Urban Hospital, Berlin, said in his inaugural article that the journal was designed to meet the requirements of the medical practitioner and that great attention would be paid to treatment. The first number contained articles by Professor Gerhardt on Trousseau and Dumontpallier's Reaction; by Professor Harnack on Poisoning by Arsenic; a Pharmaceutical Review by Professor Kobert; a Clinico-therapeutical Review by the Editor; a letter from a New York correspondent, &c. The new journal is nicely printed.

Administration of Chloroform in the Street.

A curious event—the administration of chloroform in a public place—happened lately in Berlin. A woman in trying to jump from an electric tramcar running at full speed through the Friedrich-strasse fell and her right foot was caught between the platform and a wheel. Police and firemen made long but fruitless attempts to extricate the woman who screamed piteously. Medical help was then sought at the neighbouring university hospital, from which a surgeon and two assistants were sent. The surgeon decided to administer chloroform in order to facilitate the work of rescue and did so in the busy thoroughfare and in the presence of a great crowd. The tramcar was raised with lifting-jacks and when after more than an hour the woman was released from her terrible position with comparatively slight contusions the surgeon was loudly applauded by the spectators.

May 15th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Professor Cervello's Treatment of Tuberculosis Pulmonalis.

RETURNING to this theme, briefly and imperfectly handled in my last letter, I can now, by way of supplement, give further and fuller details as to its "previous history" and present position. Dr. Cervello has for many months past been studying the action of the formic aldehyde (in familiar parlance "formalina") on the tuberculous lung. He disclaims priority in the use of this agent in such cases. In fact, he admits that the formic aldehyde, so far from being a novelty in therapeutics, had been tried by other investigators in search of a cure for tuberculosis. Their experiments, however, proved abortive or worse, that agent being a powerful irritant, causing even painful reactions in the respiratory apparatus healthy or diseased. How to conserve its remedial virtues while minimising, if not absolutely excluding, these deterrent reactions? This was the question Dr. Cervello set himself to solve. His first step was to blend the formic aldehyde with air—with *un ambiente medicato* (a medicated atmosphere)—in the required proportions. For this he contrived a special

[1] THE LANCET, March 11th, 1899, p. 731.

[2] THE LANCET, Feb. 2nd, 1895, p. 317; July 13th, 1895, p. 127; July 18th, 1896, p. 218.

apparatus which he calls "vaporigeno," the use of which maintains in unvarying proportions the evaporation of the formic aldehyde without the necessity of constant surveillance. The "vaporigeno" having turned out a success, his next step was to render the formic aldehyde tolerable if not entirely grateful, to the sufferer. This involved pharmacological difficulties neither few nor small, but at last he succeeded in obtaining a new compound of the formic aldehyde to which he gave the name of "gazolo" (or less colloquially "igazolo"), which answered all the conditions desired. The vapour evolved by this compound soon becomes quite tolerable by the respiratory organs, its inhalation admitting of talking or reading aloud easily—a result impossible under the formic aldehyde *per se*. The first two steps gained Dr. Cervello next experimented clinically with his "igazolo." Naturally he would have preferred to begin with tuberculous cases at as early a stage as possible so as to give his medicament the fairest chance. Instead of this he had to commence operation on the inmates of the Guadagna Hospital for Consumption in all of whom tuberculosis pulmonalis had for some time been running its course. Making the most of the circumstances, beginning moreover as previously stated in the dead of winter (Jan. 15th), he faced every adverse condition—the *ambiente ospitaliero* (hospital environment); the regulation diet, not always modified to his liking and, indeed, comparatively meagre; the tendance and general assistance *non troppo scrupolosa* (not too conscientious)—and all this notwithstanding, he attained results far beyond his anticipations. As stated in my previous communication, of the 26 patients experimented on 10 cured absolutely were presented as such to the Palermitan Accademia delle Scienze Mediche of which Dr. Cervello is president, and were pronounced on examination by the experts of that body to be *guariti*. Nine were almost cured, their deliverance from the disease being only a question of time; two were "improved" sensibly, one was stationary, two had got worse, and two died. The last were admitted to hospital in an advanced stage of the disease, with *diffusione miliarica*, grave hæmoptysis, or *localizzazioni intestinali*, which of themselves would have had a fatal issue, although even in their case the "igazolo" treatment did work a notable amelioration in the lung. All things considered Dr. Cervello, after the first course of his clinical experiments, felt justified by his 40 per cent. of cures to follow up his method, confident that under better conditions and at a less advanced stage of the disease a yet higher percentage is probable. Pharmacologically speaking, he finds a microbicidal virtue in the "igazolo" peculiarly well adapted to tuberculosis. It not merely destroys the bacillus—an only partial benefit, as even when dead the bacillus (according to Strauss) can exercise a pernicious influence—but it has an exceptionally high oxidising power, and to this its curative action is due. The "igazolo," in fact, does in a more energetic fashion what hyper-oxygenated fresh air has from all antiquity been found to do in phthisis pulmonalis. But to let Dr. Cervello conclude in his own words, as given in his memoir, read before the Palermitan Accademia: "In a disease like tuberculosis which we are accustomed to regard as nearly always fatal, and which has resisted the most various forms of clinical attack devised by the most powerful intellects, it seems rash to pronounce the word 'cure,' and I confess that it was not without trepidation that I decided to make my studies *publici juris*. However, I have sought to cultivate the scientific calm which is the true preventive of every possible source of error and, what is more, I have tried to keep myself extraneous to that affection (*στοργή*) which dotes on its own offspring and which in therapeutics so readily leads to illusion. So far, I think I have succeeded and I therefore wait with due serenity the criticism of my colleagues." All that Dr. Cervello claims, it will be seen, is to have "made out a case" for further experiments with "igazolo." As stated last week, he has been enabled by the munificence of a local millionaire to prosecute these under conditions much more favourable than those presented by the Guadagna Consumption Hospital, while yet another result may spring from their prosecution so assisted—they may attract to Palermo that *clientèle* for which its well-wishers have long been yearning and so lead to its becoming for invalids in general that "popular health resort" which, as proved up to the hilt in your columns, Nature has qualified it to be.

May 15th.

MONTREAL.

(FROM A CORRESPONDENT.)

A Sad Case.

IN medical circles and among the laity, too, a general subject of conversation for the last few days has been a surgical misadventure of the utmost sadness—the removal of a patient's sound eye by mistake for the diseased one. The patient, a young man of 18 years, had received an injury to the left eye some five years ago, which had been treated by the operator, an eye specialist of good reputation and of considerable experience in private and hospital practice. A few days ago the injured eye became troublesome and inflamed, and its removal was recommended. Consent was given and the surgeon attended with a medical assistant and nurse at the home and enucleation of an eyeball was effected under anæsthesia. The friends were informed that it was satisfactorily accomplished. A few minutes later the horrible discovery was made that the sound eye had been removed. So strange an accident is fortunately of extreme rarity but not unique, as a similar case has been reported as having occurred in the United States.

The Battle of the Clubs.

Club practice had received a good deal of attention from the governors of the College of Physicians and Surgeons, our provincial medical rulers, and it had been proposed to discipline members who undertake contract medical work. At the last annual meeting there was such an upheaval and there were so many changes in the officers, the result of active canvassing and tactics worked on local issues, that the matter of club practice has dropped out of sight and will not be brought up again for a long time. It is estimated that over one-fourth of the medical men of the district are interested in club or society work. The great power of the members of the benefit societies has been shown in municipal elections and in the dropping of officers, in one case after 30 years' service, who had expressed views opposed to club methods. The usual honorarium to the surgeon is 4*s.* per head per annum; medicine is also furnished.

Interprovincial Registration.

Up to the present time a medical graduate of one of the provinces could not practise in any other province without re-examination and re-registration. The awkwardness of this state of things has been manifest ever since confederation was consummated 32 years ago, and efforts have been made from time to time to evolve a scheme whereby one examination would do for the entire dominion but without success. Professor T. G. Roddick, M.D., a Member of the House of Commons, is now working energetically on a plan the main feature of which is the creation of a central board of examiners composed of representatives of the provinces who should hold an examination annually at the capital, Ottawa, and grant diplomas entitling the recipients to practise in any part of the country. Dr. Roddick has addressed numerous meetings of medical men in different sections of the dominion and has met with much encouragement. The various provinces are strong on their "rights" and the difficulty of securing combined action is very great. Another scheme which has been broached is that of the creation of a Canadian University for the sole purposes of examining and the granting of diplomas and degrees.

May 8th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Neglect at the Women's Hospital, Melbourne.

THE confidence of the public in the arrangements of the Women's Hospital, Melbourne, has been a good deal shaken lately. A patient suffering from peritonitis was sent to the hospital by one of the honorary medical officers. She did not arrive on the day expected but on the next day—a Saturday—at about 11 A.M. She was allowed to walk from a cab to the ward and her admission was not reported to the resident medical officer till midnight when she was in a dying condition. She died at 9 A.M. on Sunday without being seen by any of the honorary staff. An inquiry was held and revealed the following state of affairs. The hospital

is divided into two departments—the midwifery, under the control of a resident and assistant resident medical officer, and the infirmary, under the charge of a separate resident medical officer. The last-mentioned, Dr. Docker, was away on leave and the midwifery resident, Dr Crowley, was undertaking his duties as well as his own. The sister in charge of the nurses in the infirmary department was also away on leave. On the Saturday the patient arrived Dr. Crowley went out for the afternoon, leaving Dr. Stanley, his assistant resident on the midwifery side, in charge of both departments. The patient arrived at the hospital before Dr. Crowley went out, but her admission was not reported to him by the nurse in charge of the ward. She tried to find him after he had gone out and in some inexplicable manner failed to find Dr. Stanley who was in the hospital all day. Dr. Crowley returned at 7 P.M. but was not informed then of the patient's admission. He went out again and returned at 11.45 P.M. and went round the wards and found the patient in a dying condition. It is a rule of the hospital that the wards shall be visited at 8 P.M. by the resident and also that he shall not be absent from the hospital for a longer period than six consecutive hours, but it appears that these rules have not been observed for a long time. The nurses contradicted each other in their evidence and appeared to have lost their heads. The committee thought fit to place all the blame on Dr. Crowley who has resigned. The inquiry, however, showed a great want of system in the arrangements of the hospital for the admission of patients, the attendance of the medical officers, and the responsibilities and control of the nurses, a want of system for which the committee itself is responsible.

The Friendly Societies and the Medical Profession in Victoria.

The various friendly societies, such as the Grand United Order of Oddfellows, the Manchester Unity Order of Oddfellows, the Sons of Temperance, and the Australian Natives Association, have just been holding their annual conferences in Victoria. The reports showed that in all of these bodies the sick pay had exceeded the amounts previously incurred and that the financial position of the friendly societies was not altogether satisfactory. The action of the Medical Defence Association in calling a conference on the relations of the medical officers to the societies came in for criticism and the general feeling of the members who spoke was distinctly hostile to the proposals of the Medical Defence Association and especially to the idea of excluding from lodges men earning over £200 per annum. It was said, and always is said, by the lodges that if the present medical officers went on "strike" and refused their services to the lodges plenty could be got to take their places, showing that their grievances could not be very great. It is a curious anomaly that members of friendly societies who are also for the most part members of trades unions should make use of such an argument, but it shows the necessity for all members of the profession to join associations like the Medical Defence Association in Victoria and practically to adopt the tactics of the trades unions and to fight the friendly societies with their own weapons.

The New South Wales Board of Health.

The report of the Board of Health of New South Wales for 1897 has been laid before Parliament. The report states that with reference to the notification of infectious disease it had been thought best to limit the operation of the Act to diphtheria, typhoid fever, and scarlet fever. In designing the machinery for carrying out the provisions of the Act the objects kept in view were the following:—

> To record medically certified cases alone; to secure prompt notification to local authorities; to cause local authorities to record it and then to promptly transmit the information to the central bureau; there to distribute all cases to the districts to which they rightly belonged and once a fortnight to show on a diagrammatic map how many cases of each disease had occurred in each police district and in each municipal district within it and the deaths which had been thus caused.

In relation to the supervision of dairies a good deal of discontent had arisen among dairymen owing to the Board advising the local authorities to see that the provisions of the Act were more stringently enforced, and the local authorities had not all equally complied with the advice and hence a good deal of the feeling of dissatisfaction. During the year seven cases of illness were reported to the Board under the Leprosy Act, 1890. It was found that three were cases of leprosy and the remainder were other diseases. Two of the cases of leprosy were admitted to the lazaret, and the third patient, who had recently arrived from Queensland, was allowed to return home. All were whites—one of native and two of foreign birth.

The Geelong Water-supply.

Dr. Gray, assistant medical officer to the Board of Public Health of Victoria, has furnished a report on the water-supply of Geelong. He finds that the river water in the vicinity of the intake of the supply is grossly polluted by discharges from mills and other establishments and bacteriological examination showed the following result: "The approximate average number of micro-organisms per cubic centimetre, growing in gelatin in 90 hours at 70° F., was in No. 1 sample, 12,200; in No. 2 sample, 4600; in No. 3 sample, 4800; and in No. 4 sample, 11,000." He concludes that the water is so contaminated as to be utterly unfit for human consumption.

Delay in Erecting an Infectious Disease Hospital, Melbourne.

At the time of the Queen's Jubilee funds were subscribed in Melbourne for the erection of an infectious disease hospital. A site has been granted by the Government, but nothing further has been done. The urgent need of such an institution was well illustrated by a recent case. A woman and child were staying at a boarding-house in the city and the child was taken ill. The medical attendant was not sure whether it was diphtheria. The landlady of the boarding-house refused to allow them to remain there. The private hospitals are not allowed to take in infectious cases and those applied to refused. The public hospitals also were unable to take in the child, and finally a private hospital agreed to take the child in. The Board of Health then inquired into the matter with a view of prosecuting the proprietors of the private hospital for breach of the Act. Ultimately the case proved not to be diphtheria. The responsibility for the delay in connexion with the Infectious Disease Hospital rests with the committee. The secretary states that the amended plans and specifications will be submitted for consideration of the committee in a few weeks.

Children's Hospital, Melbourne.

The new wing of the Melbourne Hospital for Sick Children was recently opened by His Excellency the Governor. The whole of the buildings are fitted up in accordance with the most recent scientific methods and as part of a scheme for an entirely new hospital.

Alleged Cruel Treatment of a Patient at the Melbourne Hospital.

A patient at the Melbourne Hospital recently accused one of the resident medical officers of improper and cruel treatment. He alleged that he had been bitten by a snake, but the medical officer suspected malingering and applied the electric battery, when the man confessed he was shamming. The committee investigated the complaint very carefully and fully exonerated the medical officer, Dr. Douglas Shields, and found that he did not subject the patient to unnecessary suffering.

Queen Victoria Hospital for Women.

The following have been appointed honorary consulting medical officers to the Queen Victoria Hospital for Women, Melbourne: Surgeons: Sir T. N. Fitz-Gerald, Mr. F. D. Bird, and Mr. G. A. Syme. Physicians: Dr. D. Grant and Dr. John Williams. Gynæcologists: Mr. R. Adam and Mr. M. A. O'Sullivan. Children's specialists: Surgical, Mr. H. Russell; Medical, Dr. R. R. Stawell.

April 10th.

Obituary.

HENRY BENDELACK HEWETSON, M.R.C.S. ENG.

MR. BENDELACK HEWETSON died on May 13th in his fiftieth year. For some few years past the deceased gentleman had been ailing and several attacks of influenza aggravated his condition. In March last he broke down and after staying at the village of Essington, near Hull, was removed a fortnight ago to the latter town where he has just passed away.

Mr. Hewetson was born at Beverley and while still a youth went to Leeds, where the family took up their residence near Woodhouse Moor. The foundation of his education was laid at the Beverley Grammar School and subsequently he joined

the Leeds Grammar School. In 1868 he entered as a student at the Leeds School of Medicine and in 1873 he qualified as a Member of the Royal College of Surgeons of England. He then entered the Royal London Ophthalmic Hospital and became clinical assistant to the late Sir William Bowman. Having studied aural surgery at Guy's Hospital he was offered the position of house surgeon at the Royal London Ophthalmic Hospital, but preferred to return to Leeds, where he commenced practice and acted as assistant to Mr. T. Pridgin Teale. In 1883 he became honorary surgeon to the Leeds Public Dispensary and in the same year was appointed one of the honorary ophthalmic and aural surgeons to the Leeds Infirmary, which position he continued to hold up to the time of his death. He also held the position at one time of honorary consulting ophthalmic and aural surgeon to the Reynard Hospital, Willingham, and honorary surgeon to the Leeds Public Dispensary. Among his contributions to medical literature are "The Human Eye in Perfection and in Error"; "Relation between Sick Headaches and Optical Defects, chiefly Astigmatic, their Diagnosis and Treatment by Glasses"; and "The Localisation of Headaches." To medical journals he was also a frequent contributor; but his literary labours were not confined strictly to medical subjects, "The Influence of Joy upon the Workman and his Work" and "The Life and Works of Robert Hewetson, Boy Painter and Poet," being two of the best-known lay labours from his pen.

Mr. Hewetson was a Fellow of the British Laryngological Association, president of the Otological Section at the British Medical Association meeting in 1893, and a member of the Ophthalmological Society of the United Kingdom and of the Leeds and West Riding Medico-Chirurgical Society. He was also a member of the Society of Otology, Laryngology, and Rhinology of Paris.

The deceased surgeon was a man of catholic tastes and broad sympathies. In everything relating to art he took a great interest and was himself an artist. He was a traveller and collector of objects of *vertu* and gave to the Leeds Philosophical and Literary Society's Museum a small but valuable collection of Egyptian antiquities from Old Alexandria and Cairo. In 1885 he was elected President of the Leeds Naturalists' Club and Scientific Association and held that position for three successive years. As an ornithologist he did much good work, especially in regard to the study of migration. He also assisted in the exploration of the famous "kitchen middens" in the Holderness district of East Yorkshire. Mr. Hewetson leaves a widow and 11 children, for whom much sympathy will be felt.

GEORGE GEDDIE, M.D., L.R.C.S. EDIN.

ON May 6th there passed away one of those country practitioners of whom "Ian Maclaren" has written so feelingly in "A Doctor of the Old School." George Geddie was for 40 years a practitioner in Garmouth, Morayshire, and was parochial medical officer of Urquhart. As the obituary notice in the *Aberdeen Herald* says, "generous to a degree and unsparingly self-sacrificing, he unmistakeably possessed all the qualities that constitute the ideal type of character in his particular calling." Besides his medical work he was a Justice of the Peace for the county and was for many years a member of the Speymouth School Board. Some six years ago he was presented with a purse of sovereigns in recognition of his valuable services to "three generations of men, women, and children in a wide and populous district." He leaves a widow, three daughters, and two sons, one of whom is following his father's profession in Australia.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Marcellin Duval, formerly Director of the French Naval Medical Service.—Dr. Ulry, head of the Ophthalmic Clinic, Bordeaux.—Dr. H. Thomas, Clinical Professor of Medicine in the Tours Medical School.

THE annual festival dinner in aid of the funds of the East London Hospital for Children was held on Monday night in the Whitehall Rooms, Hôtel Métropole, under the presidency of the Duke of Connaught. The festival donations, including 25 guineas from the Duke of Connaught, amounted to £2255.

Medical News.

UNIVERSITY OF EDINBURGH.—The following candidates were successful at the recent examinations for degrees in medicine and surgery:—

First Professional Examination.—R. T. G. Aickin, G. C. Anderson, W. W. Anderson, F. L. Atkinson, James Bentley, W. F. Brayne, B.A., E. C. Brown, E. E. Cassaday, K. S. Clark, E. L. Colby, J. H. Connolly, W. A. Cowan, C. H. Craig, Henry Curwen, Arthur Dangerfield, H. S. Davidson, D. E. Derry, T. S. Dick-Cleland, F. H. Dickson, F. C. Drew, H. N. Fletcher, Louis Fourie, E. G. Fraenkl, H. S. Gaskell, A. C. Geddes, Archibald Gillespie, E. G. Girdwood, W. L. M. Goldie, A. M. Gurney, E. I. Hall, C. R. F. Hartley, C. H. Houghton, J. H. Jones, J. M. Kirkness, W. S. Laidlaw, Vivian Langmore, A. W. B. Loudon, Henry MacCormac, I. M. MacRae, James M'Turk, W. E. Marshall, S. A. Moore, B.A., A. B. Morgan, E. G. Morton, Ernest Muir, C. H. Muller, W. S. Pillans, Herdman Porter, A. F. Rabagliati, E. M. Reece, W. R. Reid, W. J. D. Robertson, David Sandler, D. J. Scott, F. W. S. Shepherd, G. D. Sloan, J. A. Small, A. B. Spence, Amelia Sutcliffe, E. J. Taylor, J. P. du Toit, Louis Turiansky, Robert Veitch, G. J. Wentzel, F. A. Wille, G. H. Winch, and W. D. Wright.

Second Professional Examination.—D. M. Aitken, J. F. Allan, C. M. Anderson, R. V. C. Ash, A. A. Ayton, R. T. Baillie, A. C. Begg, R. A. Bellilos, J. H. M. Bell, R. J. Bradley, Alfred Brown, E. E. Brown, G. M. Brown, James Brownlee, R. W. Buchanan, Henry Buist, E. P. Calder, R. A. Cameron, S. M. D. Campbell, C. C. Choyce, P. T. Copeland, G. G. Cumming, B. M. Cunningham, W. H. Dickinson, M. S. Dickson, W. E. C. Dickson, B.Sc. (with distinction), Henry Dodgson, J. W. Duffus, J. M. Dupont, J. R. Edward, R. S. Ellis, B. G. Forman, Catherine Fraser, Stephen Garvin, R. A. Glegg, R. M. Grant, A. L. Gurney, A. R. Hallam, A. M. Hamilton, R. A. J. Harper, E. R. Henderson, D. C. Henry, C. W. Howe, Andrew Hunter, M.A., A. E. Hunter, C. E. P. Husband, William Hutchison, E. M. Inglis, E. M. G. Jayne, G. A. Jolly, A. C. Keay, J. P. Kennedy, G. I. Lecesne, William Lee, C. H. Lindsay, Samuel Lyle, J. G. M'Bride, L. T. M'Lintock, C. B. M'Conaghy, J. B. M'Cutcheon, William Macdougall, Elizabeth M'Elney, P. F. M'Farlan, George M'Farland, A. F. M'Kay, John M'Kenzie, H. J. C. M'Laren, K. D. C. Macrae, William Mair, M.A., A. M. Malcolmson, G. R. Mill (with distinction), John William Miller, J. G. Mitchell, D.Sc. (with distinction), John Morrison, David Munro, J. G. Munro (with distinction), A. C. Murray, G. S. Murray, A. D. Nimmo, D. A. Ogilvie, J. H. C. Orr, William Paterson, S. G. Peill, C. B. Pepper, George Periera, H. G. Pesel, L. W. Pole, E. J. Porteous, W. G. Porter, E. T. Potts, W. H. Prentice, H. St. J. Randell, William Ritchie, H. M. Roberts, G. C. I. Robertson, J. S. E. Robertson, M. W. Robertson, C. W. Salesby (with distinction), J. D. Sauer, M. C. C. Seton, T. B. Shaw, M. W. Smart, M. M. Smith, Kate Southon, B. A. Spence, G. C. Strathairn, David Sutherland, Paul Telles, G. L. Thompson, E. C. Thomson, J. P. Thorne, G. R. Turner, E. J. Tyrell, E. A. Walker, A. S. Watson, A. G. Waugh, Philip Weatherbe, Edwin Wells, T. S. B. Williams (with distinction), A. J. Williamson, F. E. Wilson, James Woods, and T. B. Unwin.

Third Professional Examination.—Robert Affleck, T. H. W. Alexander, C. H. Allen, J. D. Anderson, M. S. Anderson, Hubert Bishop, A. B. Black, O. C. Bradley, L. P. Brassey, J. M. L. Brown, M.A., Adam Brydon, G. F. Buist, G. B. Butt, H. E. Arbuckle, R. A. J. Asbury, B. H. S. Aylward, A. J. Baird, S. A. Ballantyne, M. C. Beatty, J. H. Bell, R. A. Cameron, J. P. Campbell, Malcolm Campbell, G. S. Carmichael, J. B. Cassels, V. P. A. Coghill, W. P. Cormack, John Craig, T. A. Davies, William Eadie, R. S. Ellis, J. S. Enslin, Edward Ewart, D. C. L. Fitzwilliams, Andrew Fleming, Catherine Fraser, Alexander Frew, W. E. Frost, Yoshinobu Fukuda, J. S. Gelkie, J. C. Gilchrist, W. Girdwood, P. S. Haldane, G. H. Hanna, Frederick Hardie, N. E. Harding, Herbert Harris, Davis Heron, Eleanor Hodson, K. W. Hogg, H. J. Hoile, L. J. Hood, F. F. C. Jagger, E. B. Jamieson, J. G. S. Jamieson, M.A., Miles Johnston, J. C. Kennedy, F. K. Kerr, S. M. de Kock, Langworthy Laurie, R. G. Leach, A. C. Lennie, Gerard Lowther, R. J. M'Clelland, C. B. M'Conaghy, J. G. M'Dougall, S. L. M'Elderry, W. E. M'Farlane, A. C. N. M'Hattie, J. H. M'Kee, A. J. MacKenzie, D. S. MacKnight, H. J. Maclaren, H. J. M'Lean, D. M. Macleod, J. M. A. Macmillan, Angus M'Nab, G. W. P. Maitland, A. A. Martin, Harry Mason, F. C. Matthew, E. T. Melhuish, J. B. Milne, Joseph Miskelly, James Munro, Florizel Myers, H. C. Nixon, J. C. Parker, Norman Patterson, C. B. Paul, John Pender, M. C. Pepper, J. B. Primmer, J. R. Prytherch, Samuel Rattray, O. L. Rhys, C. M. Richardson (with distinction), D. J. Roberts, G. A. P. Ross, John Ross, M.A., R. A., Ross (with distinction), W. C. Ross, A. J. Ryle, L. S. Sandeman, T. B. H. Scott, W. S. Scott, E. T. Selkirk, J. F. Selkirk, H. D. Shepherd, T. S. Shepherd, S. R. Sibbald, F. D. Simpson, William Sloss, J. A. Small, C. B. Snow, G. B. A. Speirs, A. D. Spence, E. R. Sproull, T. G. Stewart, C. P. Strong, M. A. Swan, J. H. Thornley, Alexander Trotter, C. S. Vartan, William Wallace (with distinction), A. G. Watson, N. S. Wells, G. D. Whyte, F. M. Wigg, A. W. Wilson, M. R. Wilson, T. J. G. Wilson, A. M. Wood (with distinction), and Garnett Wright.

UNIVERSITY OF CAMBRIDGE.—At the congregation on May 11th the following were admitted to medical degrees:—

M.D.—F. Villy, M.A., St. John's College.

M.B. and B.C.—S. B. Reid, M.A., St. John's College, and A. F. MacCallan, B.A., Christ's College.

B.C. only.—H. N. Clarke, B.A., Trinity College, and J. R. Garrood, B.A., St. John's College.

A new Lectureship in Physical Anatomy is about to be established in the University.—Professor Kowalevsky of the Imperial University of St. Petersburg was on May 11th admitted to the honorary degree of Doctor of Science.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.—At a stated meeting of the College held on May 12th the following gentlemen were admitted on examination:—

Licentiates in Medicine and Midwifery.—George Cole Baker, M.B., and J. J. McGrath, L.R.C.S. Irel.
Licentiates in Medicine.—G. H. Brand, L.S.A., and J. C. McWalter, L.R.C.S. Irel.
Licentiate in Midwifery.—A. H. Hardcastle, L.S.A.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—DENTAL EXAMINATION.—The following gentleman having passed the necessary examination has been admitted a Licentiate in Dental Surgery of the College: Mr. W. F. Crosse. The following gentlemen have passed the primary part of the examination for the Licence in Dental Surgery: Mr. A. L. Harrison, Mr. D. L. Rogers, Mr. J. R. Small, Mr. G. M. Sterling, and Mr. E. N. Tate.

THE LATE MR. A. H. REINHARDT.—The death of Mr. A. H. Reinhardt, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., occurred on May 6th, at 135, Hornsey-road, N., from cardiac failure occurring in the second week of enteric fever. The deceased was 33 years of age and was in active general practice in Holloway up to the time of his illness a fortnight ago. He had been in Holloway four years, having previously practised in the neighbourhood of Battersea-park. He was educated at the Yorkshire College and the London Hospital Medical School. He possessed an exceptionally powerful and muscular physique and was in robust health until the commencement of his illness. The body was cremated at Woking on May 9th.

CHARING-CROSS HOSPITAL.—A bazaar in aid of the building fund of Charing-cross Hospital will be held in the Albert Hall on June 21st and 22nd under the patronage of the Queen, the King of the Belgians, the Princess of Wales, Princess Christian, and other royal ladies, several of whom have graciously promised to be present during the proceedings. The arena of the hall will be covered over with a platform upon which stalls will be arranged to represent different countries. A book is being prepared as a souvenir of the bazaar and will be illustrated by artists of the highest repute, amongst whom are the greater number of the Royal Academicians. Communications and offers of help for the Swiss stall may be addressed to Mrs. Kitto, St. Martin's Vicarage, Charing-cross, W.C.

BRISTOL ROYAL INFIRMARY.—The annual distribution of prizes to the students of the Bristol Royal Infirmary took place on May 9th. Sir Charles Cave, Bart., occupied the chair and made the presentations, of which the following is a list:—Entrance Scholarship, Mr. H. Gough and Mr. P. Maxey (£10 10*s.* each); Suple Medical Prize and Gold Medal, Mr. James Phillips; Suple Surgical Prize and Gold Medal, Mr. J. R. Frost; Clark Prize, Mr. P. G. Stock; Tibbits Memorial Prize, Mr. J. R. Frost and Mr. E. M. Pearse; Pathological Prizes, Mr. J. R Frost and Mr. J. Phillips; Ophthalmic Prize, Mr. P. G. Stock; Dental Prize, Mr. S. Wilcox; Special Dental Prize, Mr. J. L. Tilly; and Special Midwifery Certificates, Mr. J. R. Frost, Mr. H. Hemsted, Mr. W. B. Prowse, and Mr. P. G. Stock.

LITERARY INTELLIGENCE.—Mr. Henry Kimpton of High Holborn announces the publication of a work entitled "Progressive Medicine." It will be published in four volumes every year at intervals of three months and will be copiously illustrated. In the words of the prospectus it will "present in an original, narrative form a clear statement of the practical advance made in every department of medicine and surgery during the year, each specialty being dealt with by a single authority." The general editor is Dr. Hobart Amory Hare and the subscription for the four volumes to be published every year is £2 10*s.*—For some years past Mr. F. J. Hanbury, F.L.S., of the well-known firm of Messrs. Allen and Hanburys, has been engaged upon a work dealing with the flora of Kent, assisted by the Rev. E. S. Marshall, F.L.S., vicar of Milford, Surrey. The book has just been published and contains besides an account of the flora notes on the topography, geology, and meteorology of the county. The price is 12*s.* 6*d.* net and orders may be sent through any bookseller or direct to Frederick J. Hanbury, Plough-court, Lombard-street, London, E.C.—Messrs. William Green and Sons, of St. Giles-street, Edinburgh, announce the publication of an Encyclopædia Medica in 12 volumes to be issued quarterly. The price per volume is 20*s.* or if the series is subscribed for now 17*s.* 6*d.* Orders mu t be sent before June 15th. The general editor is Dr. Chalmers Watson. A supplementary volume will be issued from time to time so as to keep the book up to date and with each will be given small gummed marginal labels which can be placed opposite the article affected in the original volume. For example, one label would run "Abscess; for further information see Supplement, p. 130." The agents in London are Messrs. J. & A. Churchill, Great Marlborough-street.

THE Trustees of Smith's Charity have sent a donation of £100 to the Royal Hospital for Diseases of the Chest, City-road, E.C.

ROYAL ALBERT HOSPITAL, DEVONPORT.—As a result of the bazaar recently held in aid of this hospital the sum of £715 has been forwarded to the institution.

MEDICAL MAGISTRATE.—Mr. R. E. E. South L.R.C.P. Lond., M.R.C.S. Eng., has been appointed a Justice of the Peace for the Borough of Boston, Lincolnshire.

BRISTOL JUBILEE CONVALESCENT HOME.—Her Majesty the Queen has given a conditional promise to open the Bristol Jubilee Convalescent Home in November or December. This institution has been erected on the Clifton Downs at a cost of £90,000 as a Jubilee memorial.

PRESENTATION TO AN ARMY MEDICAL OFFICER.—At a fête recently held on the premises of the Borah Mosque, India, Major R. J. Geddes, M.B. Glasg., of the Royal Army Medical Corps, was presented with an address, a gold watch, a silver plate, and a despatch box, in recognition of the valuable services rendered by him to the Borah community in India during the plague epidemic. Major Geddes was in charge of the plague hospital and segregation camp for about six months. His skill and energy were manifest at the time by the fact that out of 49 patients admitted to the hospital no less than 32 recovered. It is a rule in the service that no presentations are to be made to any officer, but from the exceptional circumstances of this case the authorities relaxed the rule to allow the natives of the district to show their esteem and appreciation of Major Geddes's services.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Scotch Parish Council Medical Officers.

MR. ALEXANDER CROSS has introduced into the House of Commons a Bill to give an appeal to the Local Government Board to the medical officers of parish councils in Scotland.

Sale of Food and Drugs Bill.

This Bill having now been dealt with by the Grand Committee on Trade goes before the House of Commons for the report stage and Sir Charles Cameron will take this opportunity of bringing forward his proposal for the appointment by the Local Government Board of a Standing Committee of Reference on Food Standards.

HOUSE OF LORDS.

TUESDAY, MAY 16TH.

Isolation Hospitals.

The Earl of LICHFIELD at this sitting of the House moved the second reading of the Bill introduced by him to amend the Isolation Hospitals Act of 1893. His lordship explained that it had been assumed that where efficient hospitals were in existence, built under the Public Health Act of 1875 with the assent of the local authority and the Local Government Board, they might be transferred to the new local bodies and that the county councils might contribute to the expenses if they so pleased. Unfortunately the Local Government Board had decided that in neither of these cases was it legal so to act, and thus the operation of the Act of 1893 was seriously crippled. There was, indeed, a deadlock existing in many counties. The Bill was introduced with the assent and support of the County Councils Association of England and Wales, who were anxious that a change should be made in the law as speedily as possible. The Bill gave power to district councils and joint boards to transfer hospitals to county councils, and it allowed county councils to contribute towards the expenses of the hospitals provided under the Act of 1875. Power was also given to the county councils to borrow—a power which they did not possess under the Act of 1893.

Lord HARRIS said that the Local Government Board, while fully approving of some of the provisions of the Bill, were not quite satisfied as to the provision enabling county councils to take over existing hospitals.

The Bill was read a second time.

London Water Question.

In the course of the consideration in committee of the whole House of the Metropolitan Water Companies Bill, a clause was inserted providing that "Nothing in this Act shall authorise the construction by any

metropolitan water company of any works for the purpose of utilising any supplies of water drawn from wells outside the water limits of the metropolitan water companies not now utilised under the powers possessed by such companies."

HOUSE OF COMMONS.

THURSDAY, MAY 11TH.

Vaccination Certificates.

Mr. BROADHURST asked the President of the Local Government Board whether, in view of his statement that non-delivery of a certificate of exemption under Section 2 of the Vaccination Act, 1898, to the vaccination officer within seven days after it had been granted rendered the certificate null and void, he could now state to whom such certificate should be delivered during any period in which, through death, resignation, or non-appointment, there was no vaccination officer for the union; and whether, as in case of the death or removal of the vaccination officer, or of errors in or the destruction of his registers, there might be a difficulty in proving the registration of certificates in subsequent proceedings, he could arrange for the issue of a certificate of the delivery and registration which might be available as evidence of the granting of a certificate of exemption and its delivery and registration within the prescribed period.—Mr. CHAPLIN: In the event of a vacancy in the office of vaccination officer which cannot be filled up forthwith the guardians are required to appoint a person to act temporarily and it would seem that the certificates of conscientious objection should be delivered to the person so appointed. I am not aware that any difficulty of the kind referred to in the second paragraph of the question has arisen. It does not appear to me to be necessary, at all events at present, to make any arrangements in regard to it.

FRIDAY, MAY 12TH.

Statistics of Insanity.

Mr. WILLIAM CORBET asked the Home Secretary whether his attention had been recently called to the statistics of insanity; whether he was aware that an increase in the actual numbers of registered insane from 55,525 to 132,831 had taken place between the years 1862 and 1896 and an increase in the ratio of insane to population from 1·81 to 3·33 per 1000 during the same period; and whether he would cause an inquiry to be made into the subject to ascertain if any means could be devised to arrest the spread of the disease.—Mr. JESSE COLLINGS (for Sir MATTHEW WHITE RIDLEY): I am aware that the numbers of the registered insane do most unfortunately increase. At the same time I would refer the hon. Member to the special report of the Lunacy Commissioners published in 1897 on the subject, and I cannot say that at present I see sufficient ground for directing further special investigation.

The Mistakes of Dispensers.

Major RASCH asked the Vice-President of the Committee of Council whether the Executive of the General Medical Council had stated, in their reply to the Privy Council, what grounds they had for considering that accidents due to the employment of unqualified dispensers by medical practitioners were very rare, and, if not, would he ask that body what means they had of knowing the number of accidents, fatal and otherwise, which resulted in doctors' surgeries from the employment of unqualified dispensers.—Sir JOHN GORST: The infrequency with which such cases are reported to the Privy Council tends to confirm the opinion of the General Medical Council that they are very rare, and the Privy Council have not therefore thought it necessary to ask the General Medical Council for any further information.

Examinations for Meat Inspectors.

Mr. FIELD asked the President of the Local Government Board whether he was aware that there existed no body specially empowered to conduct examinations and issue certificates to candidates applying for appointments as meat inspectors; and whether he would arrange to establish such authorised body on the lines indicated in the Local Government Board Order of March 11th, 1899.—Mr. CHAPLIN: I have no statutory authority to carry out such an arrangement as that referred to in the question and before proposing any legislation on the subject it seems to me desirable to await the result of the communications which we have addressed to the local authorities. But the Sanitary Institute and other bodies have, I believe, for some years past afforded opportunities for training and examination in meat inspection in connexion with the certificates to sanitary inspectors and I have no doubt that the recently constituted Sanitary Inspectors Examination Board will maintain similar examinations. Moreover I understand that the Sanitary Institute are maturing a scheme for holding special examinations in meat inspection.

Mile End Vaccination Case.

Mr. STEADMAN asked the President of the Local Government Board (1) if he would state the statutory authority for imposing a poll tax on all registered births in England and Wales; (2) had he received a further communication from Mr. J. F. Haines, of Mile End, calling attention to another case of eruption after vaccination—viz., the case of the child of Mr. and Mrs. Fitzer, of Louisa-street, which was vaccinated on the same day as Mr. and Mrs. Rouse's baby and by the same public vaccinator, and had an inquiry been made; (3) did the public vaccinator report either the case of Mr. and Mrs. Rouse's baby, or of Mr. and Mrs. Fitzer's; (4) was there any penalty, and what, imposed on the public vaccinator if he neglected reporting such cases to the Local Government Board; (5) was he aware that the Mile End Guardians had adjourned the consideration of the Rouse case pending the report of the Local Government Board's inspector; and (6) would that report be forwarded to the said board of guardians.—Mr. CHAPLIN: As regards the first point I do not know what is the tax to which the hon. Member has referred. I have received a communication from Mr. Haines as to the child referred to in the second paragraph, but my information resulting from inquiries I have made is in direct conflict with his. The child was not vaccinated on the same day as Mrs. Rouse's child, but more than a month afterwards. The child suffered after its vaccination from a mild attack of chicken-pox, a disease which has no reference to vaccination. The mother herself expressed annoyance that persons who had called on her had wanted her "to make a fuss that the chicken-pox was due to vaccination." In reply to the fourth paragraph there is no obligation on the part of the public vaccinator to report to the Local Government Board such cases as those referred to in the question. And in reply to the fifth paragraph I have received a communication from the guardians with regard to the case, but they do not ask for a copy of the inspector's report, and it is not customary to forward to the guardians copies of reports of this kind which must often necessarily contain references to private family history.

London Water Question.

When the East London Water Bill as amended by the Private Bill Committee came on for consideration by the House Mr. JAMES STUART moved to insert a clause to this effect: "If the undertaking of the company is purchased within seven years from the passing of this Act otherwise than by agreement by any public body or trustees nothing in this Act shall authorise the company to bring into account or to make any claim in respect of any advantages conferred on them by or resulting from the passing of this Act."—Sir JOSEPH PEASE, who was Chairman of the Private Bill Committee, Mr. CHAPLIN, and others opposed the clause and the House rejected it by 135 votes to 73.

TUESDAY, MAY 16TH.

Poisoned Arrows.

Mr. HEDDERWICK asked the Secretary of State for the Colonies if his attention had been drawn to the frequent use of poisoned arrows by the natives of West Africa and whether any arrangements could or would be made for the scientific analysis of the poisons so employed and of alleged native or other antidotes in the Colonial Medical Institution the functions of which he recently described.—Mr. CHAMBERLAIN: It is not proposed to make arrangements in the School of Tropical Medicine for the scientific analysis of arrow poisons and their antidotes as such arrangements would entail expense which the school is at present hardly in a position to meet. Only one case of the use of poisoned arrows in West Africa has been brought to my notice and in that case an analysis of the poison and of the supposed antidote was made at Netley.

Post-mortem Examinations in Scotland.

Sir WILLIAM PRIESTLEY asked the Lord Advocate whether in cases in which post-mortem examinations were made by order of the Procurator Fiscal medical men who had had charge of a patient prior to death were allowed to be present at the examination, or whether the practice throughout Scotland in regard to granting or refusing permission was not uniform; whether persons suspected of having caused the death by criminal or other means were granted facilities for being medically represented at the examinations; whether intimation was given to interested persons in time to allow their making application for representation to the right quarter, and if he would state what was the right quarter where such application should be made.—The LORD ADVOCATE: No person except the medical men instructed to conduct the necropsy is allowed to be present except with the consent of Crown counsel or on the order of the sheriff. Crown counsel may in their discretion sanction the presence of a medical man who has attended the case or in the interests of the accused, but this is done only on condition that he is to be present merely as an onlooker and is not to interfere in any way with the Crown examination. No formal intimation is given that a necropsy is to be held, but in all cases where any person is in custody on suspicion of causing death a necropsy is made as a matter of course, so that an accused person or his advisers cannot be in doubt as to the necessity of making immediate application for permission to send a medical man to witness the necropsy if they so desire it. The quarter to which application should be made is the Procurator Fiscal, whose duty it is in all cases of urgency to communicate by telegraph with the Crown agent for the instructions of Crown counsel. If an independent post-mortem examination is desired it can be made after the Crown examination.

Scarlet Fever at Buxton.

Mr. JEFFREYS asked the President of the Local Government Board whether he was aware that on the occasion of an outbreak of scarlet fever at Buxton the milk from certain farms had been prohibited from entering the council district and that the council prohibited the sale of the milk without any evidence of its having produced the disease; and whether this prohibition was based on any statutory power.—Mr. CHAPLIN: I have communicated with the Buxton Urban District Council and I am informed that in consequence of an outbreak of scarlet fever the district council prohibited the milk from three farms outside the district from being supplied within the district. The orders appear to have been made under Section 4 of the Infectious Disease (Prevention) Act, 1890, on the report of the medical officer of health that on an inspection of the farms and in the company of a veterinary surgeon of the animals thereon he was of opinion that infectious disease was caused by the consumption of the milk supplied from the farms.

THE SALE OF FOOD AND DRUGS BILL.

PROCEEDINGS IN THE GRAND COMMITTEE.

THURSDAY, MAY 11TH.

The Grand Committee of the House of Commons on Trade met to-day, with Mr. JOHN ELLIS in the chair, and proceeded with the consideration of the Bill to Amend the Law Relating to the Sale of Food and Drugs. The Committee dealt in the first place with Clause 17 which in the Bill as introduced read as follows—viz.: "1. A warranty or invoice shall not be available as a defence to any proceeding under the Sale of Food and Drugs Acts unless the defendant has, within seven days after receipt from the purchaser of notice of his intention to take proceedings, sent to the purchaser a written notice stating that he intends to rely on the warranty or invoice and specifying the name and address of the person from whom he received it. 2. A warranty or invoice given by a person resident outside the United Kingdom shall not be available as a defence to any proceeding under the Sale of Food and Drugs Acts, unless the defendant proves that he had taken reasonable steps to ascertain the accuracy of the statement contained in the warranty or invoice."

Mr. R. G. WEBSTER moved to amend the clause by inserting at the beginning the words: "For the purpose of Section 25 of the Sale of Food and Drugs Act, 1875, an invoice shall be deemed to be a warranty without the addition of express words of guarantee, but." The hon. Member explained that according to Section 25 of the Sale of Food and Drugs Act, 1875, the defendant was to be discharged if he proved that

he bought the article in the same state as sold and with a warranty His amendment was based on the recommendation of the Select Committee on the Adulteration of Food Products and was, he said, justified by the experience of the Margarine Act which accepted an invoice as a warranty.

Mr. WALTER LONG said that while no doubt the Select Committee had passed a recommendation of this kind they added a proviso that there should be a limit as to the time during which the warranty should run in the case of goods in bulk and perishable articles and it was for the present Committee to consider whether it was practicable to insert such an amendment and what its effects were likely to be if it were inserted. His hon. friend had told him that by a subsequent amendment he intended to make the wholesale dealer a party to the prosecution, but when he came to that proposal his hon. friend would find practical legal difficulties in the way which he would be unable to overcome. It must be remembered that the fraud which was to be the cause of action was created by the sale on the part of the retailer to some customer of an article which turned out to be fraudulent. The wholesale dealer was not a party to that sale and could not be made a party to it by any process known to the law at present. It was proposed to bring him in because in another sale he had delivered to the retailer an article which afterwards turned out to be adulterated. As he was advised that was a proceeding which it would be impossible to incorporate in the Bill. The experience of the Margarine Act had been quoted, but he would ask the Committee to remember that that experience was limited to butter and margarine which involved simple questions as compared with those involved in the many other articles covered by the Sale of Food and Drugs Acts. Another point to consider was that if an invoice was to be regarded as a warranty something would have to be added to it and with that addition made he would like to know what became of the distinction between an invoice and a warranty. After a due consideration of all the circumstances he asked the Committee to reject the amendment on the ground that it would weaken the procedure under which it was hoped to discover offenders and successfully prosecute them. He was firmly convinced that any attempt to shift the responsibility from the person who was a party to the transaction to someone who might be behind him would weaken the administration of the Acts.

Mr. ASCROFT said that not only did he support the principle of the amendment, but he wished to see it extended.

Mr. KEARLEY reminded the Committee that there was more fraud in connexion with butter and margarine than any other articles and argued that if an invoice could with safety be accepted as a warranty under the Margarine Act there would be little risk in so accepting it under the Sale of Food and Drugs Acts. Without such an amendment as this, they made the retailer responsible for the dishonesty of the wholesale dealer, an injustice for which he felt sure that Committee would not stand sponsor.

Mr. PARKES expressed the view that they must get at the wholesale dealer if they hoped to do any good by this legislation.

Mr. HEYWOOD JOHNSTONE said he believed that this proposal would not work. The answer to what had been put forward in its support was why did not the retailer ask for, and insist upon, getting a warranty? If they carried this amendment they would have absolved the retailer altogether, and he objected to that most emphatically.

Sir CHARLES CAMERON intimated that he would vote for the amendment though he thought it did not go far enough.

The SOLICITOR-GENERAL (Sir Robert Finlay) said that in some cases an invoice might be a warranty but in most cases it was not. In the former cases the remedy would be by independent proceedings against the person who had given the false warranty. He was not going to say anything about the merits of this amendment; what he did say was that in its present form it was very objectionable.

After some further discussion the amendment was carried by 20 votes to 16.

On the motion of Mr. WALTER LONG the following words were inserted at the end of the first sub-section—viz.: "And has also sent a like notice of his intention to such person. The person by whom such warranty or invoice is alleged to have been given shall be entitled to appear at the hearing and to give evidence and the court may, if it thinks fit, adjourn the hearing to enable him to do so."

Mr. R. G. WEBSTER moved to add these words which he regarded as consequential upon the decision come to by the Committee—viz.: "And unless he shall summon before the court the person upon whose warranty he so relies. If the defendant shall be discharged from the prosecution under Section 25 of the Sale of Food and Drugs Act the prosecutor shall be entitled to proceed forthwith against the person so giving the warranty as aforesaid, and if it be proved that such warranty was false the person so giving the same shall be guilty of an offence under this Act and shall be liable to the penalties mentioned in Section 14 of this Act."

Mr. WALTER LONG suggested that the hon. Member might withdraw this amendment now and leave the whole subject to be put into proper form during the report stage. It was possible that the course the Government would take to carry out the decision of the Committee might be different from the words he now proposed, but at all events if he withdrew them now the Government would deal with the matter as a whole on the report stage.

The amendment was by leave withdrawn.

An amendment moved by Mr. KEARLEY to exclude foreign warranties was rejected by 25 votes to four.

On the motion of Mr. BARTLEY the following words were added to the clause, viz.: "Where the defendant is a servant of the person who purchased the article under a warranty or invoice he shall, subject to the provisions of this section, be entitled to rely on Section 25 of the Sale of Food and Drugs Act, 1875, and Section 7 of the Margarine Act, 1887, in the same way as his employer or master would have been entitled to do if he had been a defendant, provided that the servant further proves that he had no reason to believe that the article was otherwise than that demanded by the prosecutor."

Clauses 18 (duty of court to send articles for analysis) and 19 (provisions as to certificates of analysis) and the supplemental clauses having been agreed to the Committee adjourned.

FRIDAY, MAY 12TH.

The Committee met again to-day for the consideration of the proposed new clauses.

Sir CHARLES CAMERON moved to insert in the Bill this clause, viz.: "When an employer is charged with an offence under this Act he shall be entitled, upon information duly laid by him, to have any other person whom he charges as the actual offender brought before the court at the time appointed for hearing the charge, and if, after the commission of the offence has been proved, the employer proves to the satisfaction of the court that he has used due diligence to enforce the execution of the Sale of Food and Drugs Acts, 1875 to 1899, as defined by this Act, and that the said other person had committed the offence in question without his knowledge, consent, or connivance, the said other person shall be summarily convicted of such offence, and the employer shall be exempt from any penalty." The hon. Member explained that the clause was copied from the Margarine Act and helped to carry out his proposition that in all these matters there should be similar treatment.

Mr. WALTER LONG said he hoped the Committee would not adopt the clause, for he believed, in spite of the fact that the Margarine Act contained a similar clause, that it would weaken and in fact break down the administration of the Act. It would be impossible to recover penalties if the master were free in the manner proposed to put the blame upon the employé who might very well be a young lad earning only a few shillings per week. The only safe course, in his opinion, was to adhere to the old principle which made the master responsible for the acts of his servant. It was true that it had been departed from in the case of the Margarine Act, but he would remind the Committee that the clause was inserted in one of the final stages of the Bill in the House of Lords and for himself he must say that he was sorry the House of Commons did not reject the provision.

Mr. BARTLEY, supporting the clause, said that justice demanded its insertion in the Bill.

Sir CHARLES CAMERON said that so far as he knew there had been no complaint about the operation of the clause in the Margarine Act and asked the President of the Board of Agriculture to remember that in this case they were making people liable to imprisonment and not merely to civil consequences. The principle of the master being responsible for the act of his servant did not apply to criminal liability.

Mr. R. G. WEBSTER contended that it would be absurd to imprison a man when he had shown that he had no intent to defraud and had taken adequate precautions against fraud.

Mr. T. W. RUSSELL said that there was a broad distinction between the Margarine Act and the Sale of Foods and Drugs Acts, for while the former dealt with such matters as packing, branding, lettering, &c., the latter dealt with the much more serious affair of adulteration. Such being the case, he thought it would be extremely dangerous to adopt this clause from the Margarine Act.

Mr. JOHN BURNS opposed the clause on the ground that it offered a bad precedent for other legislation in connexion with coal mines and workshops and other matters.

Mr. HEYWOOD JOHNSTONE said that 70 per cent. of the defences under the Margarine Act were the innocent and simple-minded assistant just up from the country who knew nothing about margarine and he contended that the proposed clause would put a premium upon this class of assistant.

The clause was rejected by 20 votes to nine.

On the motion of Mr. BARTLEY the following clause was inserted in the Bill, viz.: "1. For the purposes of the Sale of Food and Drugs Acts the expression 'food' shall include every article used for food or drink by man, other than drugs or water, and any article which ordinarily enters into or is used in the composition or preparation of human food and shall also include flavouring matters and condiments. 2. The definition of 'food' contained in Section 2 of the Sale of Food and Drugs Act, 1875, is hereby repealed."

On the motion of Mr. KEARLEY this clause was inserted, viz: "Any person who wilfully obstructs or impedes any inspector or other officer in the course of his duties under the Sale of Food and Drugs Acts, or by any gratuity, bribe, promise, or other inducement prevents, or attempts to prevent, the due execution by such inspector or officer of his duty under those Acts, shall be liable on summary conviction for the first offence to a fine not exceeding £20, for the second offence to a fine not exceeding £50, and for any subsequent offence to a fine not exceeding £100."

Mr. KEARLEY moved to insert a clause in the following terms, viz.: "Any inspector appointed by any local authority or by the Local Government Board under this Act shall have power: (*a*) At all reasonable times to enter any private or public sale room occupied or used by merchants, brokers, wholesale dealers, or other persons, and any public or private warehouse, factory, store, quay, shed, ship, or barge where food or drugs are offered for sale or deposited for the purpose of sale or carriage, and to purchase, seize, or procure samples of any such food or drugs; (*b*) to purchase, seize, or procure samples of any food or drugs at the time of delivery or at any railway station or other place during transit or upon the premises of or elsewhere in the possession of any person for the purpose of carriage." He was advised, he said, that inspectors must have this power conferred upon them if they were to put down a system of fraud which was carried on to a very considerable extent.

Mr. WALTER LONG submitted that the clause went too far in the direction of interference and assured the Committee that before introducing the Bill the Government had considered very carefully what powers were necessary for the proper and effective administration of the Act.

After a debate of some length the clause was rejected by 25 votes to six.

Mr. HEYWOOD JOHNSTONE moved to insert: "After the commencement of this Act no milk containing less than three and a half per cent. by weight of butter fat shall be sold, or exposed, or offered for sale under the term 'prime milk'; and any person acting in contravention of this section shall be liable on summary conviction to a fine not exceeding £20."

Mr. WALTER LONG, while sympathising with the object of those who had framed the clause, said he could not regard it as practicable and therefore he must ask the Committee to reject it.

The clause was rejected by 33 votes to one.

Sir WILLIAM HOULDSWORTH moved to insert: "Where a sample of milk has been taken in the district of any local authority for the purpose of analysis by the analyst of such district the local authority shall at the request of the person from whose milk such sample was taken cause other samples to be taken, either within or without such district, of milk from the same consignor and shall submit such samples to the same analyst and if it shall appear that such analyses

are in effect the same no proceeding shall be taken or, if commenced, be further prosecuted against the consignee of the milk, but the local authority may take proceedings against the consignor and may recover penalties for any offence as authorised by Section 3 of the Sale of Food and Drugs (Amendment) Act, 1879." This clause, he said, was designed to protect the innocent dairyman or consignee who obtained his milk from places outside the jurisdiction of his own local authority. At present the local authority was not empowered to take milk for analysis outside its own jurisdiction.

Mr. WALTER LONG said that he was afraid the clause went further than its authors intended. It not only gave the local authority power to go outside its district in order to take samples, but it practically stayed proceedings if the second analysis produced a result similar to that produced by the first analysis in the district where the milk was sold. On the point of local authorities going outside their own area there was strong feeling at the present time and before any action was taken in that direction the matter would have to be very carefully considered and dealt with on broad and comprehensive lines.

Sir WILLIAM HOULDSWORTH said that if the Government undertook to consider the matter he would withdraw the clause in the meantime.

Mr. WALTER LONG said that between now and the report stage he would consider whether it was possible to deal with the power of taking samples, but he could not undertake to incorporate an amendment giving relief from proceedings.

On this understanding Sir WILLIAM HOULDSWORTH withdrew his proposal.

Several other proposed new clauses remained on the notice paper, but they were not moved, and the Bill was ordered for report to the House of Commons.

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Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ANDREWS, HENRY RUSSELL, M.D. Lond., M.R.C.S., L.R.C.P., has been appointed Obstetric Registrar and Tutor to the London Hospital, Whitechapel-road, E.

BRISCOE, J. C., M.R.C.S., L.R.C.P., has been appointed House Physician to King's College Hospital, London.

CHEESEMAN, Dr., has been appointed Medical Officer for the Chewton Mendip District by the Wells Board of Guardians, vice J. J. Hanly.

COWIE, R. M., M.R.C.S., L.R.C.P., has been appointed Surgical Registrar to King's College Hospital, London.

CRISPIN, E. S., M.R.C.S., L.R.C.P., has been appointed House Surgeon to King's College Hospital, London.

FAWSSETT, F., M.B., B.S. Lond., L.R.C.P., M.R.C.S., has been appointed Medical Officer for the Fourth Sanitary District of the Chailey Union.

FEMA, C. E., M.B. Durh., M.R.C.S., L.R.C.P., has been appointed Assistant House Accoucheur to King's College Hospital, London.

GARD, H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Northern Sanitary District of the Parish of Devonport.

GLOVER, W. K., M.B., Ch.B. Aberd., has been appointed Medical Officer for the First "A" Sanitary District of the Dartford Union.

GRAVELY, R. M., M.R.C.S., has been appointed Medical Officer for the Chailey Workhouse of the Lewes Union, and re-appointed Medical Officer of Health by the Chailey Rural District Council.

GREENWOOD, FRANK R., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Medical Officer to the Children's Hospital, Birmingham.

GUY, J., M.B., C.M. Glasg., has been appointed Assistant Medical Officer at the Infirmary of the Leeds Union.

HOGAN, B., L.S.A., has been appointed Medical Officer for the Bromley Workhouse by the Stepney Board of Guardians.

KELSALL, R., M.B., Ch.B. Vict., has been appointed Medical Officer for the Union Workhouse by the Chorlton Board of Guardians.

LEGGE, W. H., M.R.C.S., has been re-appointed Medical Officer for the Second Sanitary District of the Chailey Union.

MACKAY, J. S., M.D. St. And., D.P.H. Edin., has been appointed Physician to the new Infectious Diseases Hospital, Kirkcaldy, Fife.

MACMULLEN, W. D., M.R.C.S., L.R.C.P., has been appointed Assistant House Physician to King's College Hospital, London.

MOORE, J. W., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer and Public Vaccinator for the Sanitary District of Miles Platting.

MORT, FRANK, M.B., has been appointed a Clinical Assistant to the Chelsea Hospital for Women.

MOWLL, R. R., L.S.A., has been appointed House Surgeon to King's College Hospital, London.

NASH, JAMES T. C., M.B., C.M., D.P.H., has been appointed an Assistant in the Bacteriological Department of King's College, London.

NEAVE, EDWARD F. M., M.B., Ch.B. Edin., has been appointed House Physician to the Hospital for Women, Soho-square, London, W.

OLIVER, H. S., L.S.A., has been appointed Medical Officer of Health by the Romney Marsh Rural District Council.

PARKER, W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Schools of the Parish of St. Mary, Islington.

PARSONS, A. R. C., M.R.C.S., L.R.C.P., has been appointed House Surgeon to King's College Hospital, London.

PITTWAY, EDGAR, L.S.A. Lond., has been appointed District Medical Officer and Public Vaccinator for the Sampford District of the Saffron Walden Union.

POWNE, L., M.R.C.S., has been re-appointed Medical Officer for the Newton, St. Cyres, and Shobrooke Sanitary Districts of the Crediton Union.

RICHARDSON, W. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Union Workhouse by the Chorlton Board of Guardians.

RISDON, GEORGE OWEN, L.R.C.P. Lond., M.R.C.S., L.S.A., has been re-appointed Medical Officer for the No. 2 District by the Wells Board of Guardians.

ROBERTS, G. A., M.R.C.S., L.R.C.P., has been appointed House Physician to King's College Hospital, London.

SAUNDERS, L. D., M.R.C.S., L.R.C.P., has been appointed House Accoucheur to King's College Hospital, London.

SMITH, C., M.R.C.S., has been re-appointed Medical Officer by the Marnock Parish Council.

STEWART, A. R., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Newton Heath Sanitary District of the Prestwich Union.

STOKES, R. L., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer for the Third Sanitary District of the Chailey Union.

STONE, F. W. S., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the Sanitary District of Kelston and Northstoke of the Keynsham Out-relief Union.

SUTTON, W. L., has been appointed Public Analyst by the East Suffolk County Council.

THOMAS, L. KIRKBY, M.R.C.S., L.R.C.P. Lond., has been appointed Resident Surgeon to the Children's Hospital, Birmingham.

WEBB, JOHN EUSTACE, M.B., C.M. Aberd., has been re-appointed Medical Officer of Heath for Looe, Cornwall.

WHITTON, A. B., M.B., C.M. Edin., has been re-appointed Medical Officer of Health for Aberchirder, Banff.

WRIGHT, P. P., L.R.C.P. Lond., has been appointed Medical Officer for the Upper Holloway, East, Sanitary District of the Parish of St. Mary, Islington.

WYLIE, ANDREW, M.D., has been appointed a Clinical Assistant to the Chelsea Hospital for Women.

Vacancies.

For further Information regarding each vacancy reference should be made to the advertisement (see Index).

BATH.—EASTERN DISPENSARY.—Resident Medical Officer. Salary £130 a year, with furnished apartments, coal, gas, and domestic attendance. Applications to Colonel Eyre, Hon. Sec., Rockville, Lansdown, Bath.

BOROUGH HOSPITAL, Birkenhead.—Senior House Surgeon. Salary £100 a year, with board and washing (no wine, spirits, or beer). Also Visiting House Surgeon, to attend the sick poor in their own homes. Salary £75 a year, with board, lodging, and washing (no wine, spirits, or beer). Certain fees also obtainable.

BRADFORD CHILDREN'S HOSPITAL.—House Surgeon. Salary £70, with board, residence, and washing.

BRIGHTON, HOVE, AND PRESTON DISPENSARY, Queen's-road, Brighton.—House Surgeon to the Western Branch, unmarried. Salary £140 per annum, with furnished apartments, coals, gas, and attendance (no board allowed or locum tenens paid by the institution).

BRISTOL GENERAL HOSPITAL.—House Surgeon for three years conditionally. Salary £120 per annum, with board, residence, &c., in the house.

BRITISH OPHTHALMIC HOSPITAL, Jerusalem.—Assistant Surgeon at Jerusalem, for the remainder of the present year. Passage out and home paid and an honorarium of £100. Applications to the Honorary Secretary, 72, Cheapside, London, E.C.

BURY INFIRMARY.—Junior House Surgeon. Salary £60, with board, residence, and attendance.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Second House Physician for six months. Salary at the rate of £30 per annum, with board and residence.

CRAIGLEITH POORHOUSE AND HOSPITAL, Edinburgh.—Resident Medical Officer. Salary at the rate of £80 per annum, with board. Applications to the Clerk, Parish Council Chambers, Castle-terrace, Edinburgh.

DUMFRIES AND GALLOWAY ROYAL INFIRMARY, Dumfries.—House Surgeon. Salary £50 per annum, with board and washing. Also Assistant House Surgeon. Board and washing provided.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Glamis-road, Shadwell, E.—House Physician. Board and residence, &c., provided, and an honorarium of £25 granted conditionally.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Junior Assistant Medical Officer. Salary £130, rising £10 a year to £150 if approved, with board (no beer or wine), lodging, and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Junior House Physician for six months. Salary at the rate of £30 per annum, with board, lodging and washing in the hospital.

HOLLOWAY SANATORIUM, Virginia Water.—Senior Assistant Medical Officer. Salary commencing at £300 per annum, with board, lodging, and washing.

HOSPITAL FOR DISEASES OF THE SKIN, 52, Stamford-street, Blackfriars, London, S.E.—Assistant Physician or Assistant Surgeon.

KENSINGTON DISPENSARY, Church-street, Kensington, W.—Vacancy on the Honorary Medical Staff. Applications to Mr. T. W. O. Wheeler, 138, Kensington High-street, W.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.—House Surgeon, unmarried. Salary £140, increasing £10 per annum to £170, with rooms in the Infirmary and attendance (option of board at £40 per annum).

LIVERPOOL DISPENSARIES, 34, Moorfields, Liverpool.—Assistant Surgeon, unmarried. Salary £100 per annum, with board and residence.

LONDON COUNTY COUNCIL.—Scholarship in Sanitary Science, of the value of £150 a year, tenable in the Pathological Laboratory of the Claybury Asylum. The Scholarship will be awarded in the first instance for one year, but may be renewed. Candidates may be either men or women. Applications to the Secretary of the Technical Education Board, 116, St. Martin's-lane, W.C.

LONDON THROAT HOSPITAL, 204, Great Portland-street, W.—House Surgeon for six months.

MANCHESTER ROYAL INFIRMARY.—BARNES CONVALESCENT HOSPITAL, Cheadle.—Clinical Assistant at the Barnes Convalescent Hospital for six months. Board and residence provided and an honorarium of £25 given.

MASON UNIVERSITY COLLEGE, Birmingham (with QUEEN'S FACULTY OF MEDICINE).—Professor of Pathology and Bacteriology.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Shoreditch.—Surgeon. Also House Surgeon for six months. Salary at the rate of £50 per annum. Applications to the Secretary, City Office, 27, Clement's-lane, Lombard-street, E.C.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road, N.W.—Dental Surgeon. Also Assistant Resident Medical Officer for six months. Salary at the rate of £30 per annum.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Hampstead (Offices, 41, Fitzroy-square, W.).—Assistant Resident Medical Officer for six months. Honorarium at the rate of £30 per annum.

PARISH OF BIRMINGHAM.—Assistant Resident Medical Officer at the Workhouse Infirmary for one year. Salary £100 per annum, with furnished apartments, rations (no alcoholic liquors), coals, gas, laundry, and attendance. Applications to the Clerk to the Guardians, Parish Offices, Edmund-street.

ROYAL BERKS HOSPITAL, Reading.—Assistant Surgeon.

ROYAL EAR HOSPITAL, London.—Non-resident House Surgeon, for six months. Honorarium at the rate of £24 per annum. Applications to the Hon. Sec., Frith-street, Soho, W.

ROYAL VICTORIA HOSPITAL, Bournemouth.—House Surgeon. Salary £80 per annum, with board.

SALFORD ROYAL HOSPITAL.—Two Honorary Medical Officers for the Pendleton Branch Dispensary.

ST. PETER'S HOSPITAL FOR STONE, &c., Henrietta-street, Covent Garden, London.—House Surgeon for six months. Salary at the rate of £100 a year, with board, lodging, and washing.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—House Surgeon, for two years. Salary £100 per annum, with board, lodging, and washing. Also Assistant House Surgeon. Salary £50 per annum, with board, lodging, and washing.

TUNBRIDGE WELLS EYE AND EAR HOSPITAL.—Lady House Surgeon. Salary £60 per annum, with board and residence.

UNIVERSITY OF ST. ANDREWS.—Professor of Pathology.

VICTORIA UNIVERSITY, THE YORKSHIRE COLLEGE, Leeds.—Lecturer on Practical and Operative Surgery. Emoluments from students' fees only. Also Junior Demonstrator in Pathology. Salary £120.

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Fifth Assistant Medical Officer. Salary £100 per annum, rising £10 a year up to £150, with board, &c.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Surgeon. Salary £100 a year, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

APPLEYARD.—On April 8th, at Umtali, Rhodesia, the wife of F. E. Appleyard, M.B., B.C. Cantab., Surgeon to the British South Africa Company's Hospital, of a daughter.

BARRATT.—On May 9th, at Canterbury, the wife of Major H. J. Barratt, Royal Army Medical Corps, of a daughter.

THOMSON.—On May 13th, at Queen Anne-street, the wife of H. Campbell Thomson, M.D., of a daughter.

THOMSON.—On May 13th, at 243, Queen's-road, New Cross-gate, S.E., the wife of David Thomson, L.R.C.P. Edin., L.R.C.S. Edin., L.F.P.S. Glasg., of a daughter.

MARRIAGE.

ENSOR—COX.—On May 16th, at Minchin Hampton Parish Church, Cecil Arthur Ensor, M.R.C.S., L.R.C.P., younger son of John Arthur Ensor, surgeon, of Tisbury, Wilts, to Irene Margarita Cox, daughter of the late Edward Gordon Cox, of Hyde Brae, Gloucestershire.

DEATHS.

BARNES.—On April 5th, in Perth Hospital, West Australia, John Shepperson Barnes, M.D., B.C. Cantab., eldest son of John M. Barnes, Esq., of Morningthorpe, Norfolk, after a prolonged and trying illness.

GRIMBLY.—On May 14th, at The Grange, Summertown, Oxford, Richard Grimbly, M.R.C.S., formerly of Banbury, Oxon, aged 84 years.

WATTS.—On May 12th, at Battle, William Edward Monckton Watts, M.R.C.S., aged 69 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 18th, 1899.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
May 12	29·93	S.W.	...	108	66	49	50	53	Cloudy
,, 13	29·81	W.	0·02	109	65	49	49	52	Overcast
,, 14	29·69	S.W.	0·45	88	61	52	54	58	Cloudy
,, 15	29·38	W.	...	103	62	49	49	50	Raining
,, 16	29·57	W.	0·09	115	65	49	50	54	Cloudy
,, 17	29·72	W.	0·44	111	64	50	50	54	Stormy
,, 18	29·90	S.W.	...	114	70	52	55	59	Hazy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (22nd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (23rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.).

WEDNESDAY (24th).—St. Bartholomew's (1.30 P.M.), University College, (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.).

THURSDAY (25th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.).

FRIDAY (26th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.).

SATURDAY (27th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (23rd).—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Dr. Sherrington: The Spinal Animal (illustrated by diagrams and lantern slides).

THURSDAY (25th).—DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND (20, Hanover-square, W.).—4.30 P.M. Annual Meeting. Mr. Jonathan Hutchinson will read a Paper and open a Discussion on Diseases of the Nails with special reference to their Significance as Symptoms. Exhibition of cases, drawings, microscopical preparations, &c.

FRIDAY (26th).—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Annual General Meeting. Election of Officers for Session 1899-1900. Papers:—Mr. H. B. Robinson: Acute Intestinal Obstruction caused by an Adherent Vermiform Appendix forming a Band associated with Fœtal Arrangement of the Peritoneum.—Dr. C. Fox: A Case of Generalised Hæmorrhagic Erythema in Bright's Disease.—Mr. H. Allingham: A Case of Aneurysm of the Subclavian Artery, Ligature of the first portion of the Vessel followed in 38 days by Removal of the Aneurysm. The patient will be shown.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

TUESDAY (23rd).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Dr. Ormerod: Hysteria.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM (73, Welbeck-street, W.).—4 P.M. Dr. F. Beach: Mental Disorders in Children.

WEDNESDAY (24th).—HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Green: Hæmoptysis.

THURSDAY (25th).—CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—5 P.M. Dr. D. Grant: Diagnosis and Treatment of Obstructive Deafness.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL (Hyde-park-corner, S.W.).—3 P.M. Dr. W. H. Dickinson: Fragments of Pathology and Therapeutics (Baillie Lecture).

CHARING-CROSS HOSPITAL.—4 P.M. Mr. Wallis: Demonstration of Surgical Cases. (Post-Graduate Course).

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Mr. Pitts: Demonstration of Selected Cases.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. H. Lloyd Williams: Treatment of Fractured Jaw.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

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SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

MASSAGE: THE REAL AND THE SPURIOUS.

WE have received the following letter from a properly taught masseur who no doubt has suffered as all genuine masseurs have suffered by the practices which have been carried on under the name of massage:—

Re MASSAGE.

To the Editors of THE LANCET.

SIRS,—In view of the recurring massage scandals should not something be done in the way of registering those who practise massage and should not all massage establishments (if there must be such establishments) be duly licensed? And also should not something be done in the way of requiring a minimum knowledge of their art by those so registered?—say a two years' curriculum to embrace anatomy, physiology, and pathology; and mechanics (chiefly animal mechanics) with training in practical massage work, including a knowledge of its physiological and therapeutical uses and effects; and the education of the hand; if besides they are required, or undertake under the guidance of the medical man, to apply electricity to the human body that they should have a proper training in that branch of science; then, lastly, that it should be made illegal for anyone to practise massage except under the supervision or by the recommendation of a duly qualified medical man, as is mostly done already by all right-minded and respectable masseurs and masseuses. I am, Sirs, yours faithfully,

A MASSEUR.

This is not the first communication of its sort that has reached us and there is no doubt that the questions raised are of considerable interest to the medical profession. Massage and applied electricity are valuable agents in medical treatment, and it is intolerable that the public should be to a great extent deprived of their benefits because a group of unscrupulous quacks or infamous *procureurs* have wrongfully described their proceedings under one or both terms. It reflects nothing but discredit upon our state and municipal legislation that it should have been possible for these persons so long to have kept up the pretence of ministering to the health of their clients when in reality they were pandering to their vices. We do not suppose that the medical profession has suffered in the least from the assumption of medical titles by persons like "Dr." Hill Wilson—though it is none the less an unfortunate circumstance that they should have attempted their imposition so long with impunity—but the genuine masseurs and masseuses, as well as the attendants who can undertake to carry out the details of electrical treatment—who comprise a class of most valuable assistants to medical service in a variety of conditions—undoubtedly have been severely injured by the ill-deeds wrought in their names. No young woman has publicly announced herself as a masseuse for the last year or two without knowing that some persons will consider that she is simply a *fille de joie*. To a certain extent the male masseur has fallen also into disrepute. A large section of the public, again, forego such treatment if possible even when ordered it. They know what "taking a course of massage" has too often meant of late and do not care to run the risk of putting into the minds of their friends and neighbours disgusting suspicions. Under these circumstances it is not surprising that we should have already received several communications in the spirit of the one which we print above, and before making further comment upon it we wish to say that all right-minded and respectable masseurs and masseuses have our best sympathy in the disagreeable predicament in which they have been placed by the supineness of municipal government.

With regard to a proposal for registering the persons who practise massage we do not think the proceeding necessary. Of course if registration were deemed advisable it would follow that a minimum of knowledge would be required from the registered, or rather it would be to ensure such a minimum of knowledge that registration would be enforced by law. But we do not think that there is any necessity whatever for registration because we cannot conceive anyone falsely pretending to practise massage who is not so pretending for immoral purposes, and with such immoral persons the law should be able to deal, for we agree with our correspondent "A Masseur" that the public, as a rule, employ genuine masseurs and masseuses only under the supervision of a medical man and the medical man in this way protects them from the simple impostor. And on similar grounds we o not consider that there is anything to be gained by the licensing of houses as places of massage. The only institution that can pretend to be a place of massage and not be one is, as far as our imagination serves us, a brothel, and the municipal authorities have already discretion to deal with brothels.

Our correspondent's proposal that masseurs and masseuses should be registered will not find much support among the thoughtful, whether medical or lay. The registration of a body of men and women after a curriculum extending over two years and embracing the study of anatomy, physiology, and pathology would be a virtual repeal of the present Medical Acts. Who would keep such persons within the intended limits? It would follow to a certainty that a half-educated medical order would be instituted and would usurp medical practice in every direction to the detriment of the public health. It is quite sufficient that masseurs and masseuses should be able to satisfy the medical practitioner at whose suggestion the adjunct to treatment is being employed that the routine of massage is familiar to them; there is no necessity for them to be pathologists or diagnosticians.

"IS IT QUACKERY?"

To the Editors of THE LANCET.

SIRS,—Although it no doubt is right and proper that every person who practises the "Swedish Movement Treatment"—or what may perhaps be more scientifically called the Treatment of Disease by Therapeutic Exercises—should be a fully qualified medical man, yet I think that "Enquirer" is rather hard on Mr. T. P. von Braun because he wrongly (?) diagnoses what possibly might have been a somewhat difficult case of abdominal trouble. Congestion of the liver is an exceedingly vague term and is used very loosely both in the profession and outside it. However, what I desire to emphasise is that in chronic diseases of the digestive organs as in chronic diseases generally, with a few exceptions, the treatment by therapeutic exercises is exceedingly useful and has succeeded where other methods of treatment have failed. In conclusion I beg to say that I am not acquainted with Mr. von Braun either personally or otherwise.

I am, Sirs, yours faithfully,

OTTO HOLST, M.R.C.S. Eng., L.R.C.P. Lond.

Eastbourne, May 17th, 1899.

THE CORPORATE AND MEDICAL REFORM ASSOCIATION.

THE following is the list of subscribers to the Voluntary Fund raised by the Corporate and Medical Reform Association, Limited, to meet the expenses incidental to the presentation of their Memorial (see THE LANCET, May 6th, 1899, p. 1270), to the General Medical Council:—

	£	s.	d.
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Mr. Frank Argles	1	1	0
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Mr. Mansell Moullin	0	5	0
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"SUPERFLUOUS HAIR."

To the Editors of THE LANCET.

SIRS,—As the result of the consultation which has been held in the columns of THE LANCET on "M.D.'s" case it is clear that none of us is very much in favour of electrolysis as a means of removing the juvenile feminine moustache. The male advisers, all three of us, adopt a mildly coercive tone. I myself was for letting the patient severely alone, having framed the prognosis that in a case of this kind she would not do what in my view she ought to do. Mr. Miller is for gently reasoning her out of her repugnance which, although strictly the right course, is of very doubtful efficacy, while "P. J. F. K." is for mildly coercing not the patient but "M.D." himself by telling him that it would "perhaps be wise" for him to have a consultation in the usual way although it is obvious that "M.D." prefers a consultation in the columns of THE LANCET. The only bright suggestion amidst these abortive proposals comes from one of the 15 lady M.D.'s of the University of London. This contributor joins the conference equipped with the faculty of intuition and a capacity of taking an all-round view of the situation and she aims at not the best thing, but the best thing that is practicable—namely, by giving the patient, through peroxide of hydrogen, a prematurely white and therefore less conspicuous moustache. The suggestion is altogether novel and is well worth weighing. Chloride of lime would do the same thing but it is extremely irritating to the skin. Peroxide of hydrogen (as Dr. Ethel

Williams suggests) is far better. But I should like, with her permission, to ask her for further information. Some time ago I was making experiments as to the bleaching properties of chloride of lime and of peroxide of hydrogen respectively on the hair. These experiments were conducted on hair removed from the head, which hair I immersed in a bottle containing the solution. I found chloride of lime by far the more potent as a bleacher—that is to say, by far the more rapid in its action—but it also corroded the hair very much more than did the peroxide. However, the peroxide nevertheless corroded the hair in a very tangible degree, as evidenced by the fact that it broke under forcible traction applied to it far more readily than was the case with sound hair. This would be no disadvantage for the purpose now in view, but I have noticed that, as a general rule, substances which corrode the hair corrode also the epidermis, and when it is a question of the upper lip irritate the skin very considerably. Dr. Ethel Williams very wisely insists that the hairs must be well soaked in the peroxide solution; this precaution, as my own experiments showed me, is absolutely necessary for the bleaching of hair by this means. Short of a thorough and indeed a somewhat prolonged soaking in it the peroxide will not bleach hair, but will render hair (originally dark) at first red and then, after longer action, yellow. Indeed, peroxide of hydrogen is largely sold—disguised under various fancy names—for the purpose of conferring golden tresses on dark-haired women.

Now, what I should like to ask Dr. Ethel Williams is whether the peroxide, when applied habitually in sufficient force and sufficiently long to bleach completely a black (feminine) moustache, is found in her experience to irritate conspicuously the skin of the upper lip, more especially at the "angles" of the mouth? I have found that the habitual use of depilatories to the upper lip is apt to make the skin at the angles of the mouth very raw indeed, and that even the use of pumice-stone (a favourite plan with many women) is wont to have the same effect. The ancient Gauls, it is true, wore only the moustache and cleared away the beard and whiskers; and they did this by cutting the whisker and beard hair off with scissors and grinding the stumps away with pumice-stone. But they left the moustache and so did not have to operate with pumice on the most tender parts of the hair-covered region of the face—that is to say, the skin around the angles of the mouth. The cheeks and chin will support with fortitude treatment which the upper lip is yet unable to tolerate.

It may, perhaps, be useful to inquire what is the cause of the strong aversion on the part of moustached young women to the use of the razor. The aversion is insuperable but the reason of it is very creditable. As far as I have been able to ascertain by inquiry it comes to this. The girl shrinks from being a fraud to the man whom she may marry. Her view is that if she can get her moustache permanently removed by some device, electrolysis or what not, she seems to be a woman without a moustache and veritably is so. That she used to have a moustache is no matter. She has one no longer. She has been completely cured of that. But if by dint of regular shaving she seems to be a woman without a moustache and yet is not in truth what she seems to be; *that*, in her view, makes all the difference when it comes to the question of marriage. No doubt she is right. In this country, where feminine moustaches are the exception, some men might find difficulty in reconciling themselves to the discovery. To this conscientious objection is added one of a material kind, and that is the mistaken, but none the less firm, belief that cutting makes the hair grow more thickly. This belief is doubtless based on the universally familiar effect of lopping or pruning on plants and is the outcome of arguing from the known to the apparently, but not really, similar unknown. One may think, if one pleases, that if one will only explain to her, &c., *but*—

"If she won't, she won't,
And there's an end on't."

I am, Sirs, yours faithfully,

May 13th, 1899. BALMANNO SQUIRE.

"WHERE SHALL WE BUILD OUR NATIONAL SANATORIA FOR CONSUMPTIVES?"

To the Editors of THE LANCET.

SIRS,—Will you permit me as a practitioner in the district referred to by your correspondent, Dr. J. E. Squire, to corroborate and, in some sense, supplement the statements made by him in THE LANCET of April 15th? I would draw attention to and emphasise the fact that shelter can easily and always be obtained from the east and north winds and that the prevailing wind—from the west—is warm, bracing, and uncontaminated. In this corner of Somerset phthisis is a disease conspicuous by its rarity and this applies equally to all other pulmonary affections. The majority of the inhabitants die from old age—last year, for instance, seven deaths being in people over 80 years and 16 over 70 years, in a population under 2000.

Although locally phthisis is almost unknown cases are often sent here to derive benefit from the change, and I should like to mention one in which most marked improvement took place. The patient was an unmarried woman, aged 20 years, sent here by her medical man. Mischief at the left apex with cough, night sweats, rapid loss of weight, loathing of food, and suppressed menstruation were the symptoms. A thoroughly miserable object this girl looked. Treatment comprised life out of doors all day, thorough ventilation and airiness of the bedroom, and abundance of good plain food, which was forced on the patient, a good deal of firmness being needed in this direction. Seven weeks under personal supervision resulted in quite unexpected improvement, the appetite being regained with increase of weight and return of the menstrual function. The patient had then to return home promising to lead the same kind of life. I heard occasionally that she was progressing favourably and coming in from my round last Thursday I was astonished to see the same girl altered out of all recognition—ruddy, robust, and vigorous—to all intents and purposes cured. I quote this case having been under my care nearly a year—others being under observation still—merely as an instance of many which have been treated successfully by my brother practitioners and myself.

I am, Sirs, yours faithfully,

GEORGE BOYD, M.R.C.S. Eng., L.R.C.P. Lond.

Portishead, Somerset, May 15th, 1899.

THE METHODS OF SUICIDES.

To the Editors of THE LANCET.

SIRS,—I should be very much obliged if any of your readers could inform me whether there is any book published containing records of the different means which have been adopted by suicides, especially as regards wounding. I am anxious to collect some details of cases which, though undoubtedly suicide, have had more the appearance of homicide. I am, Sirs, yours faithfully,

May 16th, 1899. M.B.

"THE FUND FOR THE RELIEF OF THE WIDOW OF THE LATE MR. H. KINGSLEY HUNTER, L.S.A.

Mr. RIVERS WILLSON, 42, Wellington-street, Oxford, the treasurer, announces the receipt of the following subscriptions to the fund in behalf of the widow of the late Mr. H. K. Hunter:—

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"DRY SPARKLING WINE.

WITH reference to the analysis of this wine which was published in THE LANCET of May 6th, 1899, the Vineyard Basket Co., Ltd., point out that the acetic acid is given as 0·68 per cent., whereas it should have been 0·068 per cent. The error was due to a slip in placing the decimal point.

M.D. (U.S.A.).—We are aware that the subcutaneous injection of testicular secretion has been stated to produce marvellous results in certain diseases, but we are not acquainted with any authoritative corroboration of these statements. On the contrary, we have knowledge of the reverse—i.e., that the use of this product has proved quite valueless.

S. Africa.—The advertisers in question are not medical men but simply quacks. If they were medical men the fact of their advertisements appearing in the colonies only would not save them from being struck off the Register.

T. E. W. would feel grateful if any reader of THE LANCET could give the address of a school where boys of perverted moral habits are received, expense being a secondary consideration to cure.

M.B., M.R.C.S.—This is clearly the case of a grateful patient showing his feelings towards his medical man in an indiscreet manner. The medical man is to be commiserated with.

Disgusted.—We have referred to this matter before. It is not easy for a man in practice to get practical instruction of that kind.

M. B. (Liverpool) is thanked for his letter which is receiving attention.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received: *Western Morning News, Bristol Times and Mirror, The Sun, Nottingham Guardian, Warwick Advertiser, Widnes News, Warrington Observer, Lancaster Standard, Bradford Observer, South Wales Daily News, Birmingham Daily News, Glasgow Herald, Dundee Advertiser, Scotsman, Cornish Mail, Hastings News, Times of India, Pioneer Mail, Hull Daily News, Herts Reporter, Isle of Wight Express, Launceston Post, Bath Weekly Argus, Midland Herald, Harwich Chronicle, Whitehaven Advertiser, Citizen, Chorley Standard, Architect, Bury Guardian, Wigton Advertiser, Pontefract Express, Normanton Herald, Lancaster Guardian, City Press, Gloucester Journal, Brewood Courier, Builder, Atherstone Observer, Deal Chronicle, Liverpool Daily Post, Kentish Chronicle, Yorkshire Post, Brighton Gazette, Leeds Mercury, Le Figaro (Paris), Bristol Mercury, Sanitary Record, Ely Standard, Redcar News, Sidmouth Observer, Mining Journal, Local Government Chronicle, Hertfordshire Mercury, Isle of Man Daily Times, Reading Mercury, Surrey Gazette, Halifax Courier, Local Government Journal, Surrey Advertiser, Carnarvon Herald, Daily Free Press (Aberdeen), Aberdeen Herald, Epworth Herald, Dorking Advertiser, Framlingham Weekly News, Bootle Times, Crewe Guardian, Mexborough Times, &c., &c.*

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